METAPHILOSOPHY AND EDUCATING: STEPHEN C. PEPPER'S SELECTIVISM AS A BASIS FOR EDUCATIONAL EXCELLENCE

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(Submitted in partial fulfillment of the
requirements for the degree of
Master of Education)

College of Education
B R O C K U N I V E R S I T Y
St. Catharines, Ontario

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July 1984

TO THE MEMORY

OF

MY BROTHER

A LIFE OF LOYALTY, INQUIRY, AND CELEBRATION

ACKNOWLEDGEMENTS

Grateful acknowledgement is due to many people who have helped me initiate and complete the work represented in the following pages. To those who helped me in this endeavour, I would like to express my sincere thanks. I am deeply grateful to John Novak, my advisor, and chairman of the committee who was a constant source of information and encouragement. His comments and questions invited me to refine my thinking and to encounter new meanings and perspectives - in short - to actively experience an educative event.

I also wish to thank Adele Thomas and Roger Crane whose knowledge and comments gave me new insights and perspectives to consider. A special thank you is owed to Diane Finlay whose interest and caring buoyed me up in both good and bad times and whose friendship nurtured reflective pauses in which I was able to find serenity and gather renewed energy.

To my mother, father and sister I owe a very special debt of thanks for their unfailing support and belief in me. I could not have completed the task without their caring. I am also deeply grateful to my late brother for being an inspiring example of an excellent and dedicated educator with an acute sense of community. Finally may I express my thanks to Debbie Critchley, who typed the ideas presented to the reader in the following pages.

ABSTRACT

A theory of educating is always derived from philosophical tenets. In Western society these tenets are concerned primarily with the provision, maintenance and evolution of knowledge for use by future generations. The provision of knowledge for future generations is for the purpose of ensuring cultural and biological survival. Essentially this provision involves two major criteria: first, that only that knowledge which has been judged to be excellent should be passed on and, second, in addition to providing knowledge claims, the evidence for knowledge claims must also be extended in order to fully enrich meaning for an individual involved in a learning experience. Embedded in such a theory of educating are a concept of educational excellence and a concept of the provision of evidence for knowledge claims.

This thesis applied the contributions of metaphilosophy to the concepts of educational excellence and the provision of evidence. The metaphilosophy of Stephen C. Pepper was examined for its contributions to a theory of educating and a concept of educational excellence.

Metaphilosophy is concerned with making knowledge meaningful. It is a subject matter which may be studied in and of itself and it is a method for acquiring meaning by interpreting knowledge. Historically people have interpreted the knowledge of the world from basically four adequate world views which Pepper termed formism, mechanism, contextualism and organicism. He later proposed a fifth world view which he termed selectivism. In this thesis these world views were shown to contribute in a variety of ways to educational excellence, most particularly as they allow for interpretations

and analysis of evidence about knowledge claims.

Selectivism was examined in depth and was shown to contribute to educational excellence in two major ways: first, as a world hypothesis which offers an interpretation of the evidence for knowledge claims and, second, as a metahypothesis which provides knowledge about the nature of knowledge.

Finally the importance of metaphilosophy in contributing to cultural survival was demonstrated in a discussion of the potential impact of selectivism on a theory of educating and educational excellence.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

CHAPTER I

INTRODUCTION

> Knowledge, then, is the indispensable condition of expansion of mind, and the instrument of attaining to it... but a truly great intellect... possesses the knowledge, not only of things, but also of their mutual and true relations; knowledge not merely considered as acquirement, but as philosophy.[1]
>
> Cardinal John Henry Newman

Knowledge may be thought of as the alterable, accumulative and social construction of reality, acquired by experiencing events in the world. Persons, facts and objects are all events to be experienced. They are considered events in the world because they are constantly changing and their existence is finite. Dynamically events come in and out of the world. Knowledge constructions are events which may be experienced and speculated upon.

When an individual experiences events in the world, he or she constructs knowledge claims about what he or she believes are the realities being perceived. Knowledge is always knowledge from a certain perspective. Much human behaviour is directed towards validating perceptions of life's events and creating meaning from experiences of events. Knowledge must be meaningful to be of value to an individual.

Meaningful knowledge assists an individual to adapt and relate to his or her environment. For human beings, existence is purposeless unless there is a continual and meaningful exchange between individuals and the world they live in. Life without meaning has no purpose. Knowledge claims are constructed to provide meaning for oneself and for others. When meanings and perceptions are shared, knowledge becomes a social construction.

Meaning may be acquired on many different levels of complexity. A child may acquire meaning through the completion of the assembling of a puzzle; just as a philosopher may acquire meaning in understanding what constitutes truth, beauty or justice. Individuals seek both intellectual and emotional meaning from knowledge claims. Both the intellectual and emotional dimensions of meaning are required to give purpose to human existence. Knowledge is meaningful when it evokes thinking and feeling.

In making knowledge meaningful, a person sometimes uses the methods of philosophy. To philosophize is to engage in meaning making. Every person's philosophy represents his or her means of comprehending the world, by joining together intelligibly the facts he or she perceives. In the joining together of perceived facts and data, individuals create symbolic schema called hypotheses, which organize data into meaningful concepts he or she uses to perceive and comprehend the world. Philosophies or world views are also events in the world which a person may speculate upon.

To inquire about and reflect on world views is to engage in metaphilosophy. Metaphilosophy is a method for speculating on world views to further enrich meaning. However, metaphilosophy is also an event in the world and consequently is best regarded as both a subject matter and a method for acquiring meaning.

Acquiring meaning may be a social as well as an individual process. Education is an example of a social process for the extension of meaning to others. Educating is the enrichment of another person's experiences by giving those experiences new or additional meaning. Seeking to enrich

or give meaning to human knowledge of experience is the purpose of educational excellence.

Education is excellent if it provides an opportunity for people to share perceptions and meanings which evoke thinking and feeling. In Western society, such meanings are found in those materials and ideas which have been judged and found to be excellent because they provide (1) a version of knowledge and truth, (2) criteria of beauty, elegance, and/or artistic merit, (3) criterion of human judgement, like justice in politics or fairness in ethics, and (4) criteria about what is valuable in life.[2]

The idea of excellence is central to education because education is regarded as a vehicle for cultural continuity. That which is excellent must be conserved and progressively extended from one generation to another. In providing a vehicle for cultural continuity, educative materials must possess an appropriate criterion of excellence which allows for the intellectual and emotional sharing of meaning.

It is the intent of this thesis to first, explicate the conceptual relationship between meaning, knowledge, metaphilosophy and educating, and second, to demonstrate that metaphilosophy has an important contribution to make to the pursuit of educational excellence.

This author feels intuitively that an individual is concerned both with acquiring meaningful knowledge from the events he or she experiences in life and also applying meaningful knowledge to the events he or she experiences. Individuals interacting with their environment do so by reorganizing old meanings in terms of new meanings. In other words, people

actively and purposefully engage in learning when they interact with the world around them.

Educators can assist an individual to learn, to enrich and expand the meaning of the knowledge that he or she acquires about events in the world. Educators can also expose an individual to additional knowledge events in the world and thus provide an opportunity for acquiring further meaning in life. It is also felt that to assist educators in their endeavours, particularly in the provision of meaningful knowledge claims which possess educational excellence, metaphilosophy can provide an epistemology for the task. Metaphilosophy can provide educators with knowledge about knowledge.

METAPHILOSOPHY

In the area of metaphilosophy this thesis will concentrate on the thoughts of Stephen C. Pepper (1891-1972). Described as the "last of the Renaissance men" who made all knowledge his province, and taught his readers to see their world with the same vast scope, he is regarded by some scholars (Monast, Efron, and Duncan) as one of the great philosophers of the 20th century.[3] Most of his career was spent as a professor of Philosophy and Aesthetics at the University of California in Berkeley. He was the author of articles and books on "psychology, art, aesthetics, logic, ethics, general value theory and metaphysics."[4]

Pepper's work in metaphilosophy is important as a comprehensive analysis and explication of most of the world views or theories which have existed in the history of human thought. He developed the term world

Hypotheses to encompass the various world theories that philosophers have held through the ages.

In his analysis of world theories, Pepper was concerned with the "study of evidence and hypothesis - toward a reliable method rather than a reliable creed."[5] He created a methodology for considering world theories to be hypotheses because he felt that none of the world theories he had identified could support a claim to absolute truth or certainty. He regarded world hypotheses as hypothetical, as symbolic structures for creating meaning out of the facts of the world. Pepper believed that a totally adequate world hypothesis has yet to appear in human thought. By adequacy, he meant a "hypothesis of unlimited scope and precision." He has, however, outlined four relatively adequate world hypotheses which he terms formism, mechanism, contextualism and organicism. These will each be discussed in chapter II in relation to the concepts of meaning, knowledge and educating. Briefly, they are hypotheses which, in attempting to organize the total evidence in the world, provide "four different approximations to the nature of the world."[7]

Later in his career, Pepper began to articulate what he called a fifth relatively adequate world hypothesis which he termed selectivism. It is this area of Pepper's metaphilosophy which will be examined most thoroughly in this thesis, to see how selectivism relates conceptually to educating and educational excellence. In the area of educating, the work of D. Bob Gowin will provide a theoretical foundation for the purpose of this thesis.

EDUCATING

Gowin, in his book Educating, conceptualizes education as an eventful process very definitely grounded in a central notion of meaning. For Gowin, "to teach is to extend meaning."[8] Teaching is to share meaning in an educational context. Gowin perceives four common elements in the educative process which he identifies as the teacher, curriculum, student and the governing social order.[9] These elements will be considered in trying to discover the relationships that exist between metaphilosophy, particularly selectivism, educating and educational excellence.

Gowin's theory of educating is relevant to this thesis in several ways. First, his analysis of the concept of educating is related by definition to the concept of meaning. Second, he shares with Pepper a belief that a theory of educating should be based on the reflective co-operation of philosophy, common sense and science."[10] It is with this belief in mind that both Pepper and Gowin created sense structuring devices for enriching meaning, one in the area of metaphilosophy and the other in the context of educating. Third, Gowin offers an explication of educational excellence as it relates to (1) shared meaning between teacher and student and (2) the criteria of excellence in educative materials. His concepts of educating and educational excellence provide part of the theoretical groundwork of this thesis.

Gowin has developed a very useful method for visually presenting relationships between concepts, which he terms "concept mapping."[11] A concept map is a visual display and description of the interrelationships of concepts, exploiting the metaphor of the map. The technique used in

constructing a concept map begins by listing all of the concepts involved and then rank ordering the concepts by order of importance beginning at the top of the page. Lines of relation between the concepts are then drawn and labelled. At the end of each chapter summary in this thesis, a concept map is used to assist the reader in comprehending the relationships between concepts that were discussed. Such relationships may be thought of as constructs or bridges across one conceptual field to another. Figure I is a concept map of Chapter I. In the next few paragraphs a brief overview is given of the chapters to follow.

LOOKING AHEAD

Chapter II explicates Pepper's notion of world hypotheses and shows how formism, mechanism, contextualism and organicism possess implications for educating and educational excellence.

Chapter III is a detailed outline of selectivism. It was Pepper's intent that selectivism eventually be thought of as a fifth world hypothesis. It should be noted that some of the scholars who have studied Pepper feel that in fact selectivism is not a fifth world hypothesis, but is merely a deeper contextualism. Others feel that it is a synthesis of the original four world hypotheses. These and other criticisms regarding the identity of selectivism are dealt with briefly in Chapter IV.

Chapter IV also critiques the strengths and weaknesses of selectivism and suggests a conceptual relationship between Pepper's selectivism and the systems philosophy of Ervin Laszlo which was developed in 1972.

Chapter V articulates how selectivism contributes to a theory of educating by providing a basis for educational excellence.

Chapter VI summarizes the relationships bridging the concepts of metaphilosophy, primarily selectivism, educating and educational excellence discovered in this inquiry. Additionally the implications of these relationships for cultural continuity and the survival of society are discussed. Concepts arising out of this thesis which require further analysis and inquiry are also noted.

SUMMARY

Chapter I has been an attempt to introduce the reader to the key concepts of metaphilosophy and educating and to show that by definition they are related to the central notion of meaning as it applies to knowledge. It is the contention of this thesis that there are a number of relationships which exist between the concepts of meaning, knowledge, metaphilosophy and educating. It is anticipated that these relationships can be demonstrated in a conceptual framework which will act as a guide for educators, to enrich their understanding of metaphilosophy, particularly selectivism as a basis for educational excellence. This chapter has also served to introduce the reader to Stephen Pepper and Bob Gowin whose respective contributions to an understanding of metaphilosophy and educating provide the theoretical groundwork for this thesis. It is anticipated that the final conceptual framework that is developed will offer a synthesis of metaphilosophy, most particularly selectivism as it relates to educating and educational excellence. In addition, this conceptual framework should arouse invitations for further inquiry.

It is also this author's wish that if a theory of educating and educational excellence can be demonstrated to be enriched by metaphilosophy, then some of the current perceptions about the validity and usefulness of the methods of metaphilosophy and philosophy in general will change. No longer will metaphilosophy be perceived as a vague and inhibiting realm of knowledge, comprehensible only to philosophers and engaged in as mere intellectual aerobics; but rather metaphilosophy may attain the status of an event which has a concrete and practical application to other events in the world.

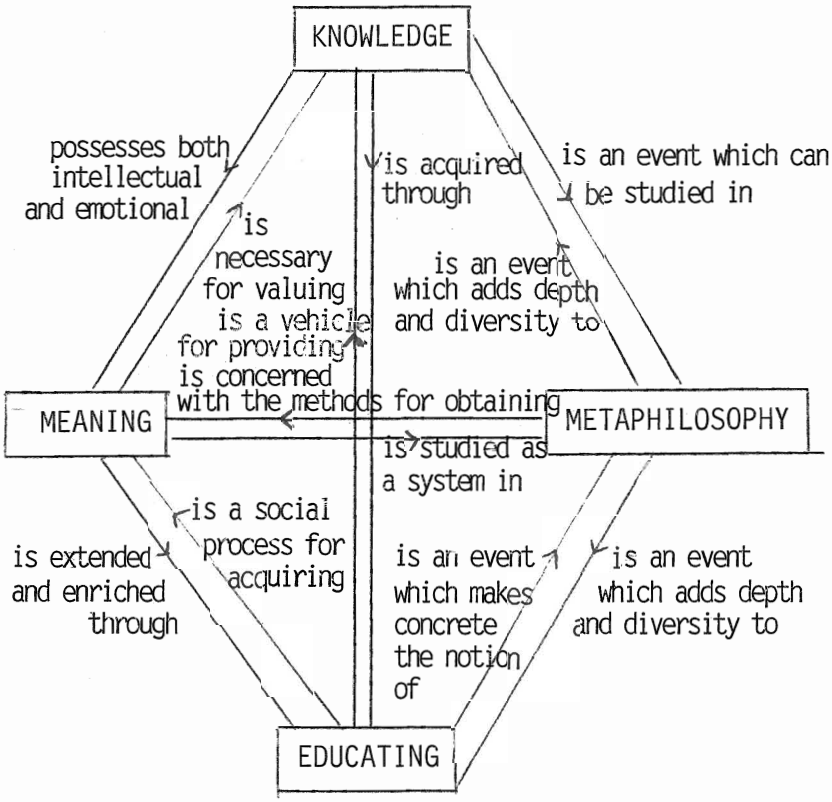

FIGURE I: CONCEPT MAP OF CHAPTER I

FOOTNOTES

1. Cardinal John Henry Newman, On the Scope and Nature of University Education, (London: J. M. Dent & Sons Ltd., 1915), p. 108, 112.

2. D. Bob Gowin, Educating, (Ithaca and London: Cornell University Press, 1981), p. 54.

3. Elmer H. Duncan, The Philosophy of Stephen C. Pepper: An Appraisal, PAUNCH, (January, 1980):64, p. 53-54.

4. Ibid., p. 64.

5. Stephen C. Pepper, World Hypotheses, (Berkeley and Los Angeles: University of California Press, 1961), p. viii.

6. Ibid., p. 77.

7. Stephen C. Pepper, The Basis of Criticism in the Arts, (Cambrdige: Harvard University Press, 1963), p. 9.

8. D. Bob Gowin, Educating, (Ithaca and London: Cornell University Press, 1981), p. 41.

9. Ibid., p. 36.

10. Ibid., p. 33.

11. Ibid., p. 33.

CHAPTER II

WORLD HYPOTHESES AND EDUCATING

INTRODUCTION

The attainment of enriched meaning involves individuals in the process of validating and valuing their own and others perceptions and constructions of knowledge about the world. Validating a knowledge construction or claim to give it additional meaning and value requires the provision of evidence. For example, an examination of the painting entitled "The Cornfield" by John Constable (1776-1837) will enrich the meaning of an artistic experience for an individual only if he or she is presented with evidence corroborating his or her perception that the painting truly possesses aesthetic value and artistic merit.

World hypotheses contribute to the attainment and enrichment of meaning, essentially because they are methods concerned with providing evidence about the nature of the world. Education is also concerned with the provision of evidence. This is exemplified in the act of teaching which may be conceptualized as an activity which provides students with knowledge claims, and in addition, presents reasons and evidence in support of these knowledge claims. It is the intent of this author to demonstrate in this chapter that world hypotheses contribute to education by providing a variety of different methods for attaining evidence about the nature and excellence of knowledge claims. This endeavour is based on the premise that in order to enrich and extend the meaning of another's experience, education must do more than assist individuals to acquire knowledge claims. Education is not only for the purpose of acquiring a great deal of knowledge on a great many subjects, but is also for the purpose of explaining and providing evidence for the nature and excellence or lack of excellence regarding knowledge claims.

The question which arises however is, what is it that counts as evidence? Assume the knowledge claim that "The Cornfield" is an aesthetic piece of art. What is the evidence for this? Pepper defines evidence as that which can be corroborated. He states:

> Grounds for belief are... always in terms of weight of evidence, which means in terms of the amount of corroboration of evidence that can be achieved.[1]

"The Cornfield" is then an aesthetic piece of art to the degree that there is a certain amount of corroboration of such a knowledge claim.

ON THE NATURE OF THE CORROBORATION OF EVIDENCE

There are two types of corroboration of evidence which Pepper distinguishes. The first is "multiplicative corroboration" in which an observation of a particular fact is taken repeatedly by a number of different observers.[2] If there is essential agreement between these observers as to the nature of the fact observed, then that fact is said to be corroborated. For example, consider a group of individuals in a room examining a glass on a table top. These individuals exhibit multiplicative corroboration if in confirming the evidence of the existence of the glass they agree to mutual perceptions such as (1) the object is clear in colour, (2) is shaped like a glass, (3) has liquid in it, (4) is 4 inches high, etc. Multiplicative corroboration is a number of observations of one identical fact.

The second type of corroboration is termed "structural corroboration" and is a corroboration of fact with fact.[3] Many different facts may be observed to converge to a given fact. Corroborating facts are held together

structurally by a hypothesis and when the hypothesis is verified the system of facts or evidence becomes more believable and provides meaning to individuals. For example, consider an individual who perceives the world to be a vast integrated machine. Such a hypothesis represents this individual's world view, his or her presupposed view of reality within which he or she makes sense out of the world. To the extent that this or any other individual can find facts in the world that corroborate this world hypothesis, the hypothesis is given additional credence and worth; meaning is enriched for those who experience the world in this way.

It is in the context of the structural corroboration of evidence that Pepper devised his metaphilosophy of world hypotheses. He was concerned with the problem of what it means to provide evidence on a broad scale using structural corroboration and felt it was necessary to use hypothesis of very broad scope, or world hypotheses. Each world hypotheses gives a different interpretation as to the nature of the world and each arises from a different origin. Pepper developed the "root metaphor theory" to explain the origins of world hypotheses. In speculating on the origins of world hypotheses Pepper is seeking to enrich his knowledge about certain existing knowledge claims. He is constructing a knowledge claim called the root metaphor theory which incorporates those claims called world hypotheses. He is engaging in the methods of metaphilosophy.

THE ROOT METAPHOR THEORY

Recall from the introduction to this thesis that the creation of meaning involves an individual in the task of hypothesizing, of symbolically arranging perceived data to help him or her make sense of the world.

Embarking on this process, a person tends to search for some clues, some common sense fact to assist his or her comprehension. The tendency is to grasp onto this common sense fact and try to understand all other areas of the world in terms of it. The original common sense fact becomes the basic analogy by which an individual interprets other facts in the world. Pepper has termed these analogies "root metaphors."[4]

The four root metaphors that develop into world hypotheses are formism, mechanism, contextualism and organicism. The root metaphor of formism is similarity, mechanism - the machine, contextualism - an event in its context, and organicism - an integrative whole.[5]

It has been stated that world hypotheses contribute to the attainment and enrichment of meaning, essentially because they are methods concerned with providing evidence about the nature of the world. What is it however that constitutes formistic, mechanistic, contextualistic and organistic evidence? Refer back to the previous example of a glass situated on a tabletop. The evidence for the truth of its existence or for the truth of its aesthetic value would be perceived according to the root metaphors of Pepper's four world hypotheses as follows:[6]

World Hypothesis		Perception and Provision of Evidence
FORMISM	-	The glass is a member of a category of all objects made of glass, all clear coloured objects, all objects used for drinking, etc. To the degree that the perceived glass is similar to these categories then it is a glass. It is aesthetically good if it matches the ideal form of these categories.

MECHANISM - The glass is perceived as having shape, weight, and solidity and is acted upon by gravity. The glass in turn acts to cause an effect on the perceiving individual. If the glass causes a pleasurable effect then it is aesthetically valuable.

CONTEXTUALISM - Contextualism recognizes everything that mechanism does, but concentrates on the immediate context of the glass in its particular situation. i.e. sitting on the table top with liquid in it. If the situation altered in any way, the uniqueness and reality of the glass would change. i.e. if it were empty or lying on its side on the table top.

ORGANICISM - The organicist believes like the contextualist that the environment surrounding the glass determines its nature, but would stress the interconnectedness of the variables making up the environment. i.e. the glass is not merely the total of what one perceives, but is the totality of the craftsmanship and natural products that created it and have determined its present condition and will determine its future condition.

D. A. Roberts, summarily describes each of Pepper's four adequate world hypotheses as follows:[7]

FORMISM - What form do things take?

MECHANISM - How do different things cause, link with, influence, or correlate, with other things?

CONTEXTUALISM- What is this event all about, given the context?

ORGANICISM - How do objects, events, fit into a totality?

Each of the four world hypotheses provides via their root metaphor a method for interpreting evidence about the nature of events in the world. This raises a number of questions. What evidence can world hypotheses provide about the nature and excellence of educative events? From the perspective of these world hypotheses, what knowledge claims can be constructed about what constitutes excellent teaching, learning, curriculum materials and governance in an educative event? These questions will be

answered in the remaining portion of this chapter, but before proceeding, it is felt by this author that a brief overview of Gowin's theory of educating and the educative event is required at this point.

A THEORY OF EDUCATING

For Gowin, a theory of educating centres around an educative event with "a teacher teaching meaningful material to a student who grasps the meaning of the materials under humane conditions of social control."[8] Embedded in this theory are the four commonplaces: teaching, curriculum, learning and governance.[9] These concepts are briefly summarized in the following paragraphs.

Teaching

"Teaching is the achievement of shared meaning in the context of education."[10] It is essentially a social event in which teacher and student come to share meaning. In sharing meaning with a student, a teacher intentionally strives to change and enrich the meaning of experience for that student. In order to achieve shared meaning a teacher uses curriculum materials. The student is responsible for grasping the meaning of the materials and for ensuring that they are the meanings the teacher intended. An educative event has occurred when meaning is shared between teacher and student.

Learning

Learning is the reorganization of meaning which has already been grasped. It is the responsibility of the student to choose to grasp the meaning of something and proceed to learn it. Learning is achieved via

the techniques of concentration, mastery, practise, exercise and drill. Gowin sees learning as intentional, "in deliberate learning we act to reorganize old meanings with the help of new meanings to make a new pattern of relation."[11] It should be noted that Gowin stresses the idea that an educative event must be an experience of value for a student to feel the significance of it and proceed to learn.[12] In order for an experience to possess value it must have meaning for an individual.

Curriculum

In order to achieve shared meaning a teacher uses curriculum materials. Curriculum is "a logically connected set of conceptually and pedagogically analyzed knowledge and value claims."[13] It is the task of a teacher to reconstruct knowledge claims for use in educating. Prior to this, the teacher is responsible for analyzing the knowledge which is to be reconstructed and for identifying the key concepts which the student will be required to grasp.

Governance

Governance is the term Gowin uses to denote the social environment that educative events occur in. Essentially the administration of an educative setting "controls the meaning that controls the effort."[14] Governance brings together teachers, learners and curriculums so that shared and enriched meaning can occur.

Recapitulating briefly, this author feels that both metaphilosophy and educating are concerned with the quest for evidence for the excellence of knowledge claims. World hypotheses can provide individuals with

alternative ways of understanding what constitutes the nature of excellence in educative events. The methods used by formism, mechanism, contextualism and organicism to construct knowledge claims about educational excellence will now be examined.

The following paragraphs will attempt to demonstrate some of the strengths and weaknesses of the root metaphor of formism applied to educational commonplaces. No doubt other relationships could also be demonstrated, but a comprehensive overview is not the task of this thesis. Rather it is the intent to demonstrate that world hypotheses can provide a conceptual framework for interpreting educational excellence.

FORMISM/TEACHING, LEARNING, CURRICULUM, GOVERNANCE - SOME CONCEPTUAL RELATIONSHIPS

Formism and Teaching

Teaching may be considered excellent when it results in the achievement of shared meaning about knowledge constructs that have been judged to be inherently valuable. Teaching is concerned with enriching the meaning of a student's experience of a knowledge claim. In order to achieve shared and enriched meaning a teacher uses curriculum materials which have been judged to contain excellent knowledge claims. These claims are usually found to be excellent because they possess a version of truth about reality, some criteria about beauty or artistic merit, some ethical judgement, or a statement about the value of something.

Teaching however is not merely concerned with the provision of knowledge claims. A good teacher also strives for excellence by sharing evidence about the nature of knowledge claims. Arthur N. Geddis in his

article entitled Teaching: A Study in Evidence, comments:

> To the degree to which teachers are concerned with fostering rationality, critical thinking, and autonomy in their students, they are committed to a concept of teaching which presents reasons and evidence in support of knowledge claims as well as the specific knowledge claims themselves.[15]

Formism provides teachers with one set of categories to organize knowledge claims in preparation for sharing with their students. Consider for example the method formism offers for interpreting the truth of a knowledge claim.

Formism provides an interpretation of the reality of the world as comprised of ideal universal forms which knowledge claims participate in. The truth of a knowledge claim is judged by its correspondence with an ideal. Formism offers a correspondence theory of truth. For example, consider a child making a knowledge claim about a picture he or she has drawn in the statement "this is a picture of the sun". The truth of this claim is judged by the degree to which the child's representation is similar to the ideal universal form of the sun which to a formist possesses characteristics of roundness, brightness, etc. To the extent that the child's picture manifests these qualities, then the picture may be judged to be a true representation of the sun. The aesthetic excellence of the drawing would be judged by the degree to which it manifested the ideal. The greater the similarity to the ideal, the greater the aesthetic value of the respresentation. Summarizing, formism is one method teachers can use to interpret and share the evidence for the excellence of knowledge claims with their students.

Formism also contributes to teaching by providing an interpretation of the concept of an ideal teacher for use by those responsible for teacher training. Such a concept is likely to contain many categories of ideal forms, i.e. ideal teachers communicate in specific ways, prepare their curriculum materials in particular ways, etc. According to a formist, the more closely a teacher approximates this ideal, he or she will be judged to be an excellent teacher.

Consider the category of an ideal teacher as a provider of evidence for knowledge claims. Formism requires that a teacher exposes students to the object or concept being judged and exposes them to a knowledge of the object or concept in its ideal form so that the students may judge the truth or value of a claim by its correspondence to the ideal. Teachers are judged to be good at their job to the extent to which they can accomplish this task. Current teacher training applies a formistic approach in the organization and creation of ideal teacher roles trainees are expected to conform to.

It should be noted, however, that formism runs the risk of becoming a coercive and uncompromising method if too rigid an adherence to an ideal is demanded. Geddis notes:

> ... it is very easy for the teacher to believe that his or her concept of the form is identical with the form itself. Every critique of education has its own story of student initiative being squelched by some overly rigid formist - the novel solution dismissed because it wasn't found in the teacher's manual... If the formist is to avoid this rigidity he or she needs to continually strive to remain open to alternative interpretations in order to see the ways in which the same fact might be interpreted differently in the light of a different form... mortals can only perceive ideal forms imperfectly.[16]

A good formistic teacher should have a knowledge of the alternate ideal forms of an object or concept in order to avoid rigidity.

Formism also implies that there is an ideal act of teaching. Gowin practises formism when he alludes to a concept of an ideal teaching situation. He states that an episode of teaching has occurred when shared meaning has been achieved due to the fulfillment of responsibilities on the part of both the teacher and the student.[17]

Reiterating briefly, formism offers (1) a method for interpreting knowledge claims and the evidence for the excellence of knowledge claims, (2) an interpretation of the concept of an ideal teacher and (3) an interpretation of the concept of an ideal act of teaching. These are only a few of the many possible applications of formism to teaching.

Formism and Learning

A necessary and prior condition for learning to occur is the grasping of meanings. Once a meaning is grasped an individual deliberately reorganizes old meanings assisted by the new meaning. A new pattern of relationships is then formed. Formism is related to such a concept of learning in so far as grasping meaning and reorganizing old meanings in terms of new ones are characteristics participating in a "form" known as deliberate learning. The achievement of excellence is related to how closely an individual brings both these tasks to an ideal closure and in so doing, enriches his or her meaning of an experience. Formism offers learners and educators alike, an interpretation of ideal learning which is centered on a concept of learning as deliberate and intentional.

Formism and the Curriculum

The concept of standardized or normative curricula is the result of a formistic approach for organizing and presenting knowledge claims. In the practice of educating people to become educators the formistic world view has contributed to the design of curricula which possess norms or standards of knowledge teachers must familiarize themselves with and master before being judged to be an expert in a particular field of study. Each curriculum area has its own norms, corresponding to knowledge claims that are considered excellent enough to warrant being taught, i.e. a science curriculum possesses different norms than a social studies curriculum. These norms are related to the excellence of claims in providing knowledge judged to be valuable enough to assist educators to maintain cultural continuity.

Curricula often reflect the world view that was used to design them. The world view inherent in a particular curriculum may then be projected to students. Kilbourn, in his work relating world hypotheses to curricula, is concerned that the world views portrayed in classrooms via curricula have potential long term consequences for both students and society.[18] Formism interprets the knowledge claims in a curriculum to be ideal norms for the student to conform to and to master well, in order to be found to be a good student. Caution however must be used to ensure against a rigid adherence to these norms which might stifle other creative and equally excellent alternatives; i.e. students should not be taught to conform to normative literary styles and genres at the expense of alternative forms of expression.

Formism and Governance

Recall that earlier in this chapter, governance was defined as the control or power necessary to bring together teaching, curriculum and learning in a social setting. Gowin notes:

> ... these events almost always involve a sharing of power. Teachers, typically have power over students, but the curriculum has power over teachers... The sharing of meaning between teachers and learners and curriculum requires the co-operation of all parties.[19]

Governance harmonizes these three commonplaces so that an educative event can occur.

Formism conceptually relates to governance in so far as governance is concerned with administering social justice. Policies desgined for the purposes of controlling are really the normative standards of an institution in the formistic sense. Such policies in an educational setting are ideals which teachers and students conform to and which guide the designs of curricula.

Thus far, this chapter has outlined a few of the possible conceptual relationships that arise when formism is used to interpret excellence in educative commonplaces. This author feels that at this point, a schematic summary of these conceptual relationships would be helpful. Presented hereafter, is a schematic which is a modified structure of J. M. Novak's "Go-Pep" Inviting Educative Events Research Model.[20]

TABLE I: SUMMARY OF SOME EXAMPLES OF CONCEPTUAL RELATIONSHIPS BETWEEN FORMISM AND THE FOUR EDUCATIVE COMMONPLACES

World Hypothesis	Educational Commonplace			
	Teaching	Learning	Curriculum	Governance
FORMISM (based on the root metaphor of similarity)	-provides evidence for excellence of knowledge claims -provides concept of ideal teacher -provides concept of ideal act of teaching	-provides concept of ideal learning as intentional reorganization of old meanings	-provides concept of normative curricula for teacher education and for student mastery	-provides concept of normative policy standards for use in administering social justice

The following paragraphs will attempt to demonstrate some of the possible results of applying mechanism to interpret educational excellence in teaching, learning, curriculum and governance. Strengths and weaknesses of the root metaphor applied to the educational commonplaces will also be discussed.

MECHANISM/TEACHING, LEARNING, CURRICULUM, GOVERNANCE - SOME CONCEPTUAL RELATIONSHIPS

Mechanism and Teaching

Mechanism can provide an alternative interpretation of the evidence for the excellence of knowledge claims. For example, mechanism offers a theory of truth which is based on a concept of cause and effect or action/reaction. Truth becomes a name for whatever causes an individual to react or adjust to his or her environment. Whatever causes or is inferred to cause a reaction or an effect is the truthful version of reality, i.e. a mechanist infers that some force was required to move object X from point A to point B. A reaction has occurred and therefore the existence of some

initiating action or cause is thought to be real.

Evidence in mechanistic terms is often quantitatively measurable and methods of measurement and calculation are used frequently, i.e. a teacher must supply numerical value and evidence for the force which is thought to have moved object X from point A to point B. Mechanism is easily allied with the teaching of science curricula because of the use of quantitative methods in providing evidence about knowledge claims. Cause and effect occurrences that are quantitatively measurable are easily interpreted by the categories of mechanism.

Mechanism is somewhat less adequate as a method for interpreting evidence about qualitative experiences. Mechanism interprets aesthetic excellence as something which causes a pleasurable reaction in a person; i.e. a mechanistic teacher interprets the evidence for the aesthetic excellence of a poem by stressing the ability of the poem or its parts to create a pleasurable effect.

Mechanism also provides a connective method for thinking about the act of teaching. It presents a method for discovering what factors influence teaching, what causes a teacher to be excellent and what results from excellent teaching. Essentially mechanism describes a connective framework of all the cause and effect relationships which surround the act of teaching. To the extent that these cause and effect relationships create an experience of shared meaning between teacher and student, an educative event has occurred. If the shared meaning has "felt significance" for the teacher and/or student then a sense of pleasure, worth or accomplishment results and the educative moment may be

judged to be good and valuable. One of the criteria of educational excellence is achieved in judging something to be valuable and meaningful in life.

Mechanism and Learning

Mechanism provides a connective interpretation of the causal factors affecting deliberate learning. Excellence in learning is centered on a concept of a student intentionally acting to reorganize an existing pattern of meaning. Mechanism interprets this reorganization as a resultant effect caused by the student making the connection between what is to be learned and what is already known. Learning in mechanistic terms is seen as necessary for an individual to adjust to his or her environment. Learning causes essential adjustment.

Mechanism and the Curriculum

From a mechanistic perspective, excellent curriculum materials offer evidence for the truth, beauty, justice and value of things in cause and effect terms. James Quina in his work on "Root Metaphor and Interdisciplinary Curriculum" offers a concept of mechanism as a blueprint for curriculum design. Curriculum designed from a mechanistic viewpoint "stresses action and reaction, stimulus and response and challenges students and teachers to ask the questions when, where, how much, how often."[21]

Geddis cautions, however, that the evaluation of such curricular items relies heavily on measurement and calculation to produce evidence for claims of knowledge and excellence. An individual must be careful not to

cultivate a tendency to restrict and assign value only to meanings which can be quantified. He states:

> ...It is much too easy for both students and teachers to become preoccupied with getting the right answer... to as high an accuracy as possible without giving sufficient consideration to what it is that is being measured.[22]

Essentially this is a plea to not use the mechanistic method to the exclusion of qualitative interpretations of life. The excellence of knowledge claims contained in a curriculum should also be qualitatively "felt".

Mechanism and Governance

Excellence in governance is related to its ability to control the meaning that controls the educative event, and harmonizes the commonplaces of teacher, curriculum and learner. Mechanism interprets this excellence by providing a concept which stresses a hierarchial chain of measurable action/reaction relationships from the level of society down through to administrators, to teachers and finally down to the students. Mechanism offers connective evidence about what factors contribute to good administration, and what results are obtained from good administration.

Finally mechanism provides evidence about the cause and effect nature of the interrelatedness of the four educative commonplaces. In stressing the integral connectedness of teaching, learning, curriculum and governance, Gowin applies a mechanistic viewpoint to the degree that good governance is seen to cause a harmonious effect between teaching, learning and curriculum.[23]

Table II is a summary of the concepts which have been outlined in this chapter in applying the mechanistic perspective to the interpretation of excellence in educative commonplaces.

TABLE II: SUMMARY OF SOME CONCEPTUAL RELATIONSHIPS BETWEEN MECHANISM AND THE FOUR EDUCATIVE COMMONPLACES

World Hypothesis	Educational Commonplace			
	Teaching	Learning	Curriculum	Governance
MECHANISM (based on the root metaphor of the machine)	-provision of evidence for excellence of knowledge claims -connective method for thinking about act of teaching	-provides connective cause/effect interpretation of intentional learning	-cause/effect design of curriculum	-concept of cause/effect relationship between governance and other three commonplaces

Contextualism also offers a method for interpreting excellence in the elements of the educative event. The application of the contextualistic perspective to educative commonplaces will now be examined.

CONTEXTUALISM/TEACHING, LEARNING, CURRICULUM GOVERNANCE - SOME CONCEPTUAL RELATIONSHIPS

Contextualism and Teaching

Contextualism offers teachers a method for providing evidence about the excellence of knowledge claims. For example, contextualism offers an operational theory of truth. As situations or events change, so does the version of truth about their nature. There may be many alternative solutions to a problem and these will change as the context of the problem changes. Contextualism provides changeable evidence for a constantly

changing universe.

Judgements about what is meaningful and valuable in life, or what is beautiful, fair, ethical or truthful will alter according to the context of the situation. Contextualism provides for a changing and adaptable concept of educational excellence.

Teaching in a contextualistic sense is to teach within the parameters of a particular problem. It is a method which strives to make curriculum relevant to students' experience. There is a potentially negative aspect of this in that it can lead to a notion of relativistic knowledge in which all theories are judged to be good as long as they provide an answer to the immediate problem. Contextualism may immerse itself in particulars at the expense of judging the general validity of a situation.[24]

Contextualism and Learning

Recall that learning requires an individual to grasp the meaning of what is to be learned. Once a meaning is grasped an individual intentionally reorganizes old meanings in terms of new ones, forming new patterns of relationships.

From a contextualistic perspective, the meaning of an educative event is unique because of the situation it occurs in. The meaning of an educative event depends on the particular set of circumstances brought to bear upon the situation. An educative moment has meaning because of a particular interplay of teacher, learner, curriculum and governance which occurs at a particular moment in time. The grasped meaning of the learner is specific to the context in which the event occurs. Any

alteration in any of the commonplace elements changes the meaning of the educative event. Contextualism perceives learning and the attainment of meaning as situational, alterable and constantly changing.

Contextualism and the Curriculum

Curricula are designed and evaluated within the context of desired goals and objectives. This is a contextualist concept. Arising from this is the implication that those who know and understand the context of the goals and objectives of a curriculum should be responsible for developing the curriculum.

Curriculum material cannot be evaluted in contextualistic terms however, without considering the contributions of the teacher and student to the educative moment, i.e. the results of a test item designed to test a specific ability to achieve in the context of a partiuclar goal, must also be recognized as being effected by a student's health, readiness, etc., at the time of the test. From the perspective of contextualism, curriculum materials are excellent if they provide knowledge claims which are flexible enough to give meaning to our perception of a constantly changning universe.

Contextualism and Governance

Applying the contextualistic world view creates flexibility and open mindedness in administration. This allows for the practise of situational ethics and situational justice which is particularly necessary in governing human behaviour. Exceptions to the rule become possible when a contextualistic viewpoint is applied.

The revisioning and revitalizing of educational policies to reflect the changing reality of the times are also inherently a contextualistic concepts. According to a contextualistic interpretation excellence in governance is unique to each educative event.

TABLE III: SUMMARY OF CONCEPTUAL RELATIONSHIPS BETWEEN CONTEXTUALISM AND THE FOUR EDUCATIVE COMMONPLACES

World Hypothesis	Educational Commonplace			
	Teaching	Learning	Curriculum	Governance
CONTEXTUALISM (based on the root metaphor of an event in its context)	-provision of evidence for excellence of knowledge claims -realistic teaching	-specificity of grasped meaning	-specificity of curriculum design -evaluate in context of educative moment	-situational justice -revisioning policy

Organicism as it interprets excellence in teaching, learning, curriculum and governance is discussed in the following paragraphs.

ORGANICISM/TEACHING, CURRICULUM, LEARNING, GOVERNANCE - SOME CONCEPTUAL RELATIONSHIPS

Organicism and Teaching

A teacher who is intent on providing evidence for knowledge claims using the method of an organicist must prove that what is being taught integrates disparate facts. Teaching from an organicist viewpoint "traces out the interconnections between facts... and shows how each fact is of critical importance to the whole."[25]

Organicist teaching attempts to maximize the interconnectedness of what a student learns and stresses the choerency of facts that produce an

integrated concept for the student to grasp the meaning of. Evidence for the excellence of knowledge claims is proportional to the degree of coherence amongst facts.

The concept of "teach the whole child" derives from an organicist viewpoint that the child is a totality comprised of social, physical, emotional and intellectual aspects. These aspects are all integrally related to produce a unique child with particular needs. Current educational theory encourages the development of educational experiences which enrich the total child.

Organicism and Learning

From the perspective of an organicist, excellence in learning is related to the ability of a student to grasp meanings as "integrated totalities." Meaning is enriched for students when they perceive knowledge claims and events in the world as wholes in relation to their parts. Organicism implies that the nature of the world may be known as a holistic reality. Events in the world should be understood and grasped as totalities.

For example, organicism would consider that the integration of governance, teaching, curriculum and learning produces the "totality" called the "educative event." From an organicist's viewpoint, educative events should be judged according to the degree to which they represent an integrated whole. Each interconnection between the commonplaces is important in producing the final totality.

Organicism and the Curriculum

Curriculum materials are considered to be excellent if they encourage a vision of knowledge claims as wholes in relation to their parts, i.e. poems are perceived as integrated wholes comprised of smaller elements. Organicism is operationally evident in some current curricula. Health and physical education curricula stress holistic concepts. Skill development in physical education activities is an organistic concept in its emphasis of the whole-part-whole method of skill acquisition. The biological sciences are stressing holistic concepts in the presentation of the study of ecosystems. Additionally the sociological fields present such holistic concepts as "man and society".

Organicism and Governance

Governance is holistically conceived of as the integration of many factors producing "a totality" which controls meaning and effort. Integrating teachers, students and curricula to produce the totality known as an educative event, is the task of governance. Balancing the needs of teachers, students and society is the process by which integration occurs. This balancing, however, is largely dependent on a sense of mutual understanding between all concerned parties. An educative event is integrated when teachers, students, curricula and administrators co-operate in order to meet individual and collective needs. Excellence in governance is related to the ability to produce an integrated, holistic educative event.

TABLE IV: SUMMARY OF SOME CONCEPTUAL RELATIONSHIPS BETWEEN ORGANICISM AND THE FOUR EDUCATIVE COMMONPLACES

World Hypothesis	Educational Commonplace			
	Teaching	Learning	Curriculum	Governance
ORGANICISM (based on the root metaphor of an integrative whole)	-provision of evidence for excellence of knowledge claims -concept of teach the whole child -teaching part of holistic educative event	-grasp meanings as holistic realities -learning part of holistic educative event	-present materials in terms of wholes in relation to their parts -curriculum part of holistic educative event	-a totality controlling meaning and harmonizing of teaching, learning, curriculum -governance part of holistic educative event

Summary

Chapter II has been an attempt to demonstrate to the reader that world hypotheses contribute to a conceptual framework of educational excellence in several ways. First, in so far as education is concerned with providing evidence for the excellence of knowledge claims to enrich the meaning of an individuals experience, world hypotheses can provide different methods for structurally corroborating evidence.

These methods derive from the root metaphors of formism, mechanism, contextualism and organicism. For example, the world hypotheses offer four different interpretations about the truth of knowledge claims. Formism provides a correspondence theory of truth, mechanism - a cause and effect theory of truth, contextualism - an operational theory of truth and organicism - a coherence theory of truth.

Second, world hypotheses can provide a variety of cognitive styles for use in teaching which can benefit a variety of learning styles. Suppose a teacher is proficient in reorganizing the four world hypotheses in operation. Thus, knowing that a student holds a particular view of nature i.e. organistic, the teacher has a basis for presenting new knowledge to the student in terms of the student's perceptual framework.

The task of the teacher in order to share meaning with a student is to select the world hypothesis which will best incorporate the analogies used by the student to construct reality. Additionally, a teacher in enriching a student's meaning of knowledge claims should introduce the student to other world hypotheses. This should help the student to realize that the knowledge he or she organizes in one way can be organized in other ways.

Third, an educator who is cognizant of world hypotheses gains both a broader and more precise comprehension of knowledge for use in creating and applying curricula to the variety of perceptual viewpoints that learners bring to the educative event.

Fourth, an administrator who is cognizant of the variety of ways in which knowledge may be conceptually organized will have a deeper understanding of his or her task in controlling the meaning and effort that constitutes an educative event.

In conclusion, the adoption of a particular world view shapes the way teachers teach, learners learn, the aims and objectives of educative materials and the governance of educative events. Figure II is a concept

map which summarizes the relationships discovered in this chapter between world hypotheses and excellence in an educative event.

In connecting the world hypotheses of formism, mechanism, contextualism and organicism to Gowin's educational commonplaces, reference has been made to the work of Geddis, who connected Pepper's metaphilosophy to educating in his perspective of teaching as a study in evidence. Reference has also been made to the work of Kilbourn and Quina both of whom see a relevant connection between world hypotheses and curriculum. Additionally reference has been made to the work of Novak who feels that systematically applying root metaphors offers a research perspective for an inviting approach to education.

Chapter III contains a detailed explication of Pepper's fith world hypothesis termed selectivism and the root metaphor it originated from. The work of Efron, Monast and Armstrong will be discussed briefly as scholars who have concerned themselves with Pepper's selectivism.

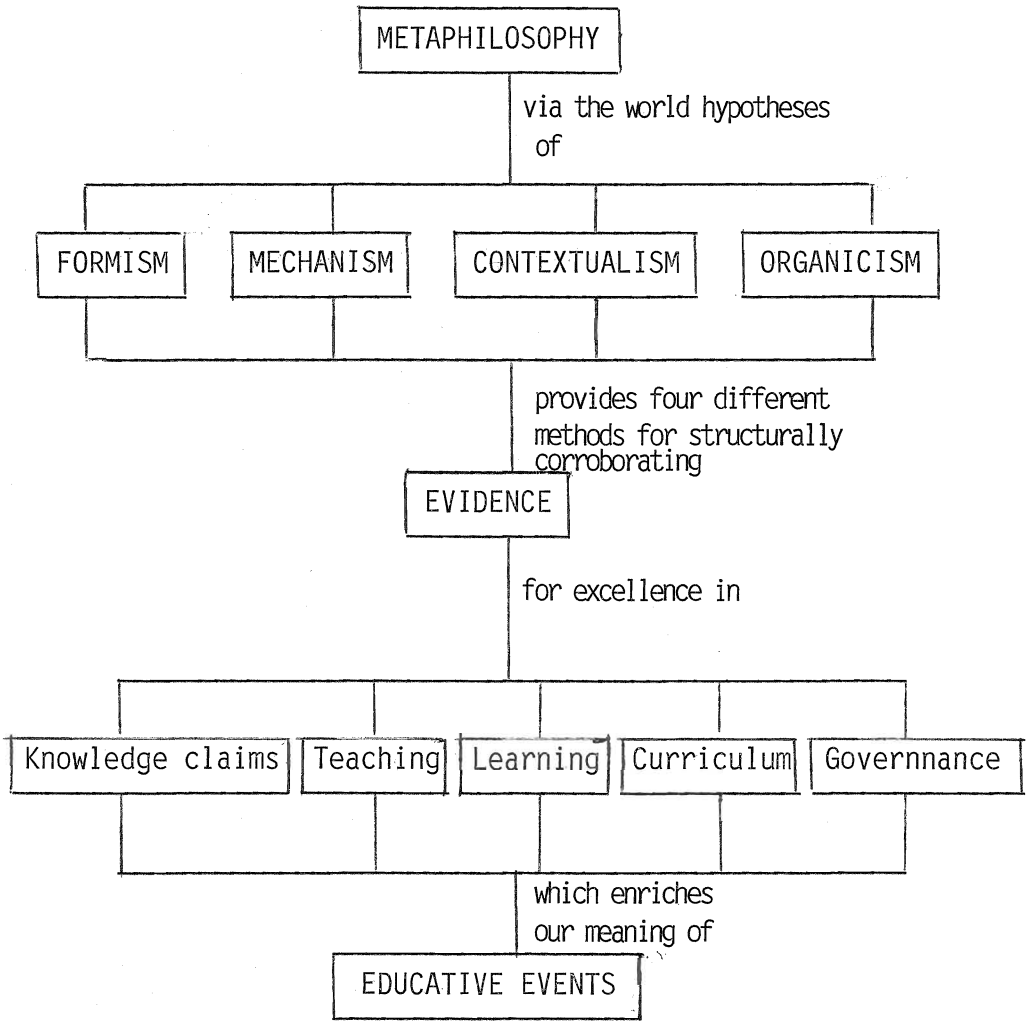

FIGURE II: CONCEPT MAP OF CHAPTER II

FOOTNOTES

1. Stephen C. Pepper, The Basis of Criticism in the Arts, (Cambridge: Harvard University Press, 1963), p. 6.

2. Ibid., p. 6.

3. Stephen C. Pepper, World Hypotheses - A Study in Evidence, (Berkeley and Los Angeles: University of California Press, 1961), p. 47.

4. Ibid., p. 91.

5. Ibid., pp. 151, 186, 232, 280.

6. James H. Quina, Jr. World Hypotheses: A Basis for a Structural Curriculum, Educational Theory, 21, (1971):314.

7. D. A. Roberts, "The Place of Qualitative Research in Science Education", (Paper presented at the 5th Annual Meeting of the National Asosciation for Research in Science Teaching), (Liberty, New York: April, 1981), p. 281.

8. D. Bob Gowin, Educating, (Ithaca and London: Cornell University Press, 1981), p. 28.

9. Ibid., p. 28.

10. Ibid., p. 62.

11. Ibid., p. 125.

12. Ibid., p. 133.

13. Ibid., p. 109.

14. Ibid., p. 56.

15. Arthur N. Geddis, Teaching: A Study in Evidence, The Journal of Mind and Behaviour, 13, (Autumn, 1982):365.

16. Ibid., pp. 367-368.

17. D. Bob Gowin, Educating, (Ithaca and London: Cornell University Press, 1981), p. 63.

18. Brent Kilbourn, World Hypotheses and their Relevance to Curriculum, The Journal of Mind and Behaviour, 3, (Autumn, 1982):360.

19. D. Bob Gowin, Educating, (Ithaca and London: Cornell University Press, 1981), p. 63.

20. J. J. Novak, Inviting Research: Paradigms and Projects for a theory of edcuational practice. (Paper presented at the American Educational Research Association's Annual Meeting, New Orleans, Louisiana, April, 1984).

21. James Quina, Root Metaphor and Interdisciplinary Curriculum: Designs for Teaching Literature in Secondary Schools, The Journal of Mind and Behaviour, 3, (Autumn, 1982):346.

22. Arthur N. Geddis, Teaching: A Study in Evidence. The Journal of Mind and Behaviour, 3, (Autumn, 1982):369.

23. Gowin denounces however, the existence of any cause and effect relationship between teaching, learning and curriculum that has not been derived as a result of the impact of shared meaning and responsibility. i.e. teaching does not cause learning. D. Bob Gowin, Educating, (Ithaca and London: Cornell University Press, 1981), p. 62.

24. Arthur N. Geddis, Teaching: A Study in Evidence, The Journal of Mind and Behaviour, 3, (Autumn, 1982):371.

25. Ibid., p. 372.

CHAPTER III

SELECTIVISM

INTRODUCTION

Later in his career, Pepper began to articulate and defend a metaphysical theory of his own, which he termed "selectivism". He proposed selectivism as a new "fifth" world hypothesis. Reflecting perhaps on his own need to contribute something new and original to speculative philosophy, or perhaps in anticipation of collegial analysis and criticisms, Pepper also described selectivism as possibly a "radical revision" of the older world hypothesis - "contextualism."

In his writings The Sources of Value and Concept and Quality, Pepper's major works dealing with selectivism, there is evidence that he is somewhat cautious about the nature of selectivism as a "new" world hypothesis. He considers alternative possibilities regarding the nature of selectivism. This does not however characterize his writing as confused or eclectic but rather reflects Pepper's adherence to the notion of world hypotheses as inadequate until sufficient evidence can be amassed to corroborate their status.

Some consideration will be given in Chapter IV to critiquing the nature of selectivism as a fifth adequate world hypothesis. However, to do justice to such an inquiry would require an analysis which is beyond the realm of this thesis. Whether selectivism eventually gains the identity of a new world hypothesis or a revised contextualism or a conglomerate of the earlier world hypotheses, it is felt by this author that it has an important contribution to make to the concept of educating and the pursuit of excellence. It is the relevance of selectivism to educating and

educational excellence that is the concern of this thesis. Other authors have studied and critiqued selectivism for the purposes of determining its status as a world hypothesis and brief reference will be made to their work in Chapter IV.

This chapter will outline the development of selectivism from its root metaphor to its application as a world theory capable of enriching an individual's comprehension of what is true, beautiful, ethical and valuable in the world. If selectivism can accomplish such an enrichment of comprehension, then a further contribution of metaphilosophy to educational excellence will result. In this chapter selectivism is described beginning with an overview of its root metaphor. This is followed by a description of its operational characteristics in various selective systems. Finally there ensues an examination of selectivism as it culminates in what Pepper terms the "social adjustment theory."[2]

Similar to the other world hypotheses, selectivism is based on an analogy or root metaphor originating in common sense. One of the common sense facts that appears evident in the world is that human beings voluntarily and intelligently engage in purposive activities. For this reason Pepper chose the "purposive act" as the point of origin for the world hypothesis he termed selectivism.

THE PURPOSIVE ACT - A ROOT METAPHOR

Most complex forms of human activity arise from two basic and simple types of purposive act which may be described as "appetitive" and "aversive". In an appetitive act an individual purposely seeks a goal

to satisfy a particular drive, such as when a person leaves a room in search of water to satisfy thirst.[3] In an aversive act an individual purposely avoids negative or painful experiences, such as when a person flees a garden on encountering a swarm of bees.[4]

Describing a purposive act may be accomplished via two routes. One is to use the introspective method and obtain a description of the lived qualitative aspects of the purposive act which are experienced and described by an individual. The other is to externally describe the structure of a purposive act by extrapolating on the observed behaviour of an indivdual engaged in purposive activity. In other words, a purposive act may be described qualitatively and/or conceptually. Consequently selectivism is deemed to be a world hypothesis which can offer evidence about the nature of the world in both conceptual and qualitative "felt" terms. The following paragraphs summarize Pepper's analysis and description of the structures of both the appetitive and aversive purposive acts in conceptual and qualitative terms.

THE STRUCTURE OF AN APPETITIVE ACT OR POSITIVE PURPOSE

Returning for a moment to the example cited earlier of an individual purposely leaving a room to seek water, it is apparent that there are a number of characteristics which comprise such an act. First, the act has an end result, or a goal, which in this case is to obtain water. Second, the act possesses a drive or an impulse related to the goal, i.e. the thirst impulse. Third, such an act is comprised of a series of stages or subordinate acts which an individual must successfully complete before

accomplishing the ultimate goal i.e. the individual in a room, driven by thirst must rise, walk out of the room, down a hall until reaching a water fountain and drinking. Getting up, leaving the room, etc. are examples of subordinate acts bridging the gap between the thirst drive and the ultimate obtainment of water.

These subordinate acts may be thought of as trials which are anticipated by the individual as alternatives or ways and means of obtaining the final goal. If, for example, an individual on leaving the room and walking down the hall discovered no water fountain, he or she would reanticipate a water fountain might perhaps be located somewhere else and proceed to try another route. The important point is that if the need for water arose again under the same conditions, the individual would no longer anticipate that water would be located at a water fountain down the original hall. The individual would have learned the error of the previous anticipation and would not repeat it.

The fourth component of the purposive activity is that there are subordinate goals which are obtained following correct anticipations as the impulse travels to its ultimate goal, i.e. when the thirsty individual reaches the hallway - it can be said that he or she has reached the goal of the anticipation, "that there would be a hallway" which might lead to water. There are successive intermediate goals to be anticipated and obtained before reaching the final goal. Figure VII represents the structure of a purposive act as outlined by Pepper.[5]

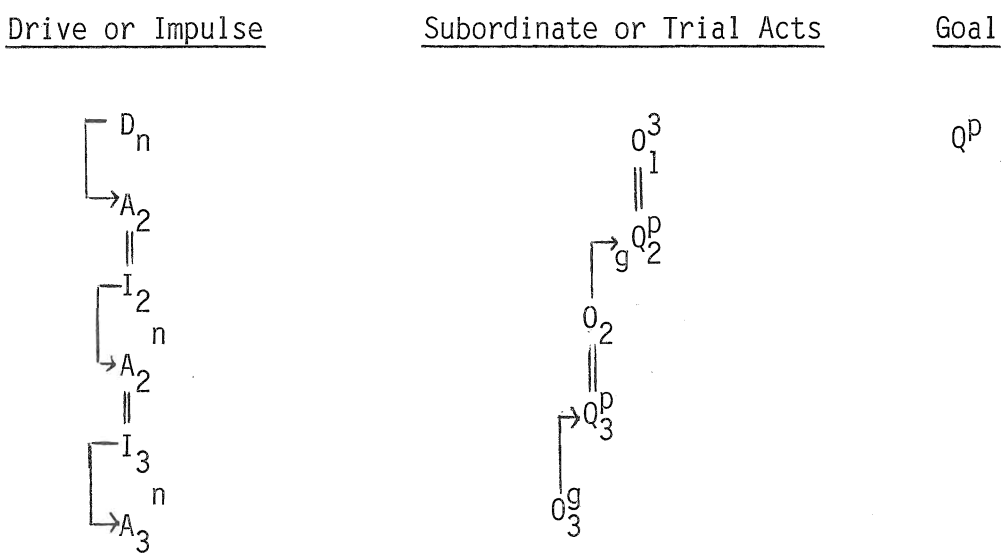

FIGURE III: SCHEMATIC OF AN APPETITIVE PURPOSE

In the schematic above D = the drive or impulse which "charges" the individual to act, A^n = an anticipatory set or trial, I_2 = an impulse given for A^n_2, O^g = a goal object of a particular anticipatory set and Q^p refers to the quiescence pattern or final consummatory act or goal which satisfies the original drive motivating the act.

Overlaying the example of a thirsty individual seeking water on top of the schematic of an appetitive purpose produces the following conceptual description:

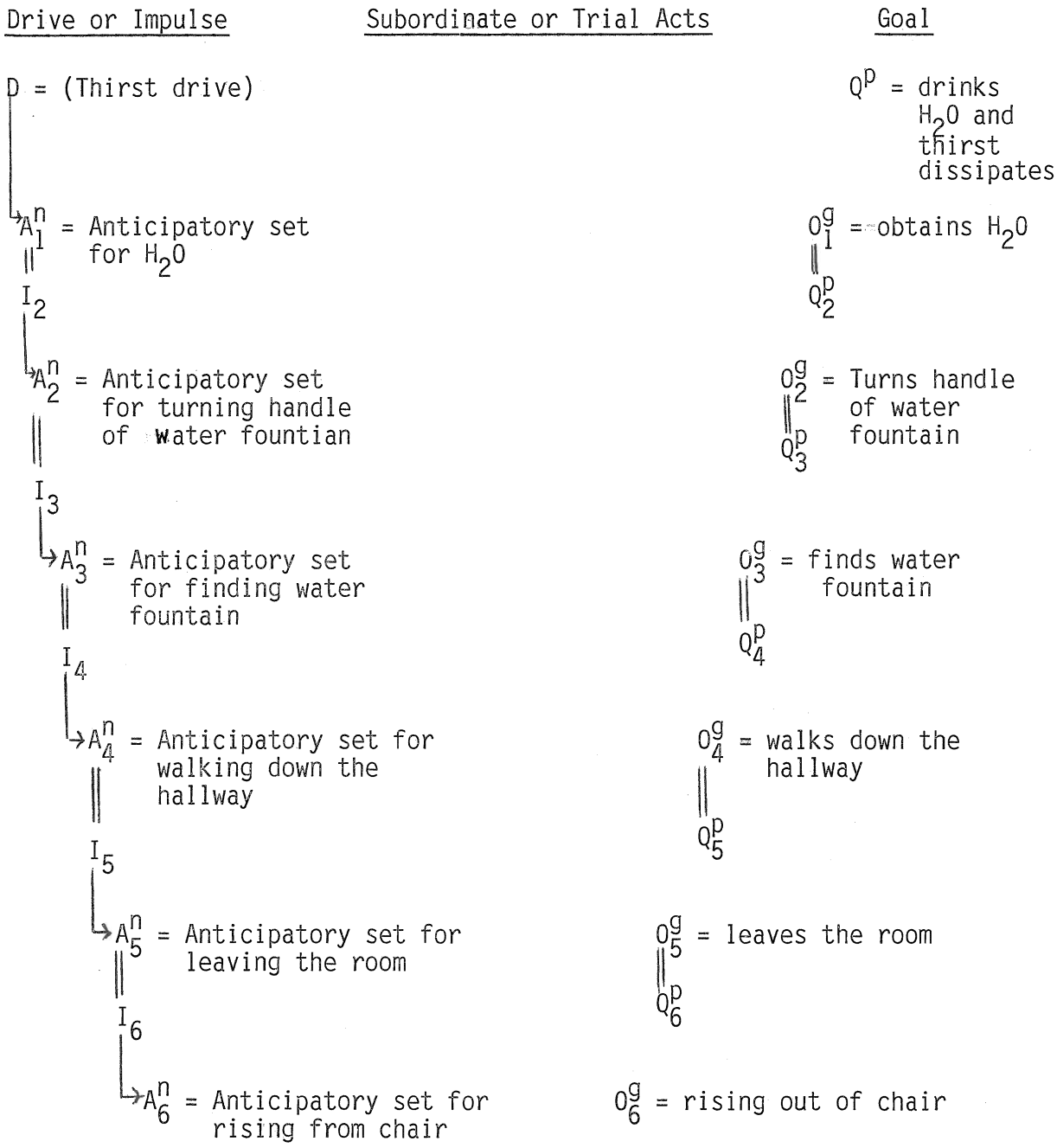

FIGURE IV: SCHEMATIC OF AN EXAMPLE OF AN APPETITIVE PURPOSE

In the aforementioned schematic, O_1^g is the goal object of A_1^n and O_2^g is the goal object of A_2^n etc. When an individual is thirsty, he or she thinks or anticipates that water will quench the thirst, (A_1^n). Such a thought gives rise to an impulse for a subordinate thought that turning on a water fountain will produce water (I_2 - A_2^n) etc. The attainment of each subordinate goal produces a quiescence which leads the individual to proceed to accomplish the next goal, i.e. finding the water fountain allows an individual to proceed to the thought of turning the fountain on. When water is finally obtained and consumed the thirst drive is dissipated. Indeed after the thirst drive is quiescent an individual may continue to drink the water leisurely and enjoy the sensation of consuming its' coolness and taste. For this reason "pleasure" is often the value associated with the consummatory phase of an appetitive purpose.

Pepper stresses the importance of realizing that the original drive motivates both the need for water as well as all of the anticipatory sets or trials which guide the individual to the attainment of water. The "drive" charges both the <u>end</u> and the <u>means</u> of obtaining the end. Pepper terms this characteristic of the drive in a purposive act its split dynamics.[6] Pepper offers an excellent description of split dynamics in the following paragraph.

> When we want the means for an end, we want the means because we want the end. Our wanting of the end goes on all the time that we are wanting the means, and it is the continuous wanting of the end that keeps us wanting the means. So the wanting gets split between the end and the means for attaining the end.[7]

The occurrence of the split dynamics results in some trial or subordinate acts being correct and some incorrect. When an anticipation is blocked or a subordinate goal turns out to be unattainable or an incorrect means of obtaining the ultimate goal, an individual selects another trial or method of obtaining the end goal. The incorrect act is discarded from the individual's thought pattern. Conversely correct acts which bring the individual closer to his or her final goal are selected and taken into that person's cognitive structure and may be recalled again if a similar situation ever arises.

Selecting correct behaviours for ensuring survival in future situations is the systematic process which Pepper terms selectivism. Selecting correct subordinate acts or trials is what an individual does when confronted with the attainment of a goal in a new environment. For Pepper the selectivism inherent in this trial and error purposive activity is also an instinctive technique of action which occurs when an individual is blocked from the attainment of a goal or the quiescence of a drive.[8] The trial and error activity is necessary to bridge the gap between a drive and its quiescence. Thus, the structure of the appetitive purposive act, with is characteristic selective trial and error activity guiding an individual to the attainment of certain ends based on the dynamics of specific needs, gives rise to the process of selectivism.

The description of the structure of an appetitive purpose, which has been outlined, fits either an introspective qualitative description of the activity or a conceptual behaviouristic and objective description. The description of anticipatory sets or anticipations is an introspective and

qualitative account of observed behaviour. It is a description of the inner feelings of someone anticipating water to reduce thirst. The enjoyment of consuming the water after a thirst has been quenched is a description of a qualitative inner feeling. These characteristics may also be described however in conceptual and objective terms. Anticipations may be viewed as hypothetical concepts which explain how an organism engages in puposive activity and moves from a drive charged state to a state of quiescence. While the qualitative and the conceptual descriptions or categories of an appetitive purposive act are themselves concepts, the conceptual categories are only obtainable from an external observer of the behaviour.

For Pepper, the dualism in nature between qualitative experience and conceptual analysis, between aesthetics and scientific method, becomes a natural and inherent dualism visible in selectivism in the structure of a purposive act. Indeed such dualism is seen as essential for a fuller and more comprehensive knowledge of the world. Extrapolating on this, selectivism as a world hypothesis appears to claim that knowledge is best gained by the methods and perspectives of philosophers and scientists alike. As such, selectivism may possess the potential for bringing about a harmonious state between the various cognitive and aesthetic experiences of mankind. Further references to this potential will be encountered as the reader proceeds through the development of selectivism in this chapter. At this point it is sufficient to realize that the descriptions of human appetitive activities are both qualitative and conceptual or, in other terms, subjective and objective.

The next few paragraphs will dwell briefly on a description of the aversive act, the other form of human purposive activity identified by Pepper. Similar to the appetitive act the description of the aversive act will be seen to be both qualitative and conceptual.

THE STRUCTURE OF AN AVERSIVE ACT - THE AVOIDANCE OF NEGATIVE EXPERIENCE

Individuals engage in aversive behaviour in order to avoid painful experience. The aversive act differs from the appetitive structurally, because its impulse or drive is not towards a final goal, but rather away from a negative experience. The avoidance of a negative or painful experience is termed the riddance patten in the structure of an aversive act. Only the absence of the offending or painful stimulus will bring an individual quiescence or freedom from fear of pain. Recalling the earlier example of an individual fleeing a garden on encountering a swarm of bees, the following schematic presents the conceptual structure of an aversive purposive act.[9]

R (riddance reaction		(apprehension of bee sting)	A^{pr}	F	Q of F quies-cence of fear
$\rightarrow O_1^A$	(object of apprehension is sight of bees in garden)	(apprehension of sight of bees in garden)	A_1^p		
$\rightarrow O_2^A$	(object of apprehension is sound of bees)	(apprehension of sound of bees)	A_2^p		
O_3^A	(object of apprehension is bees in garden)	(apprehension for the likelihood of bees in the garden)	A_3^p		

FIGURE V: SCHEMATIC OF AN EXAMPLE OF THE STRUCTURE OF AN AVERSIVE ACT

In the example the apprehensive sets are fearful ideas and are motivated by a fear drive impelling the individual away from bees and the pain accompanying bee stings. Fear usually becomes attached to all the circumstances of the situation so that not only is the final bee sting feared but also the sound and sight of bees or of locations possibly inhabited by them. The function of the structure of an aversive act is to keep an individual away from harm.

Similar to an appetitive purpose, the process of selecting correct subordinate acts also occurs in the dynamics of an aversive act. Incorrect choices of behaviour would be so labelled if they brought the individual closer to harm, i.e. if a person did not fear the sound of bees but was then bitten just after hearing one, the original lack of fear would be discarded from his or her own thoughts. It would be replaced by the correct subordinate aversive act of fearing the sound of bees which likely would allow him or her to avoid being stung. Consequently the actual fear of being stung would provide the impetus or drive for selecting necessary behaviours to remove bees from one's environment and rid the individual of feelings of fear. The following paragraphs briefly summarize the general conceptual and qualitative aspects of the two types of purposive activity.

Conceptual descriptions produce an objective perspective of human purposive behaviour structurally composed of drives or fears, anticipations and apprehensions, objects of anticipations and apprehensions, satisfactions of drives and riddance of fears or negativeness. Conceptually comparing the structure of the two types of purposive activity it can be seen that

anticipations lead individuals to satisfy particular needs in an appetitive act and apprehensions lead individuals away from harmful environments or negative experiences.

In addition, there are certain qualitative values associated with purposive acts. The primary values associated with purposive acts are the values of pleasure and pain, success and frustration. Feelings of pleasure and success are most often associated with the quiescence pattern of the drive in an appetitive act. Pain or displeasure are the values associated with the riddance pattern of an aversive act. Displeasure and frustration also occur with blocked anticipations or aversions in the course of either purposive act. When this occurs an individual is displeased and frustrated at being unable to reach an end or intermediate goal, or conversely at being brought closer to a painful experience. While pleasure and success are felt when an end goal is reached or a painful experience avoided, these feelings are also felt whenever subordinate anticipations and apprehensions reach their corresponding goal objects. In other words, there are subordinate successes all along the course of a purposive activity.

Clearly the structure of the purposive act proposed by Pepper possesses both qualitative and conceptual aspects and, as an instrument for assisting comprehension, should therefore have appeal for scientists and philosophers alike. This author feels that the qualitative/conceptual aspect of its structure will assist in demonstrating the potential contribution which the purposive act and other selective systems may extend to a theory of educational excellence. In Chapter V selectivism is argued as a basis for educational excellence.

Thus far, this chapter has described selectivism in its simplest form, the root metaphor of purposive activity. The structures of the two known types of purposive activity, the appetitive and aversive acts have been outlined. It has been demonstrated that these structures may be known, described or understood in both qualitative and/or conceptual terms, as these are innate aspects of purposive activity. The split dynamics of both the drive of an appetitive act and of an aversive act exhibit selective behaviour. The same impulse that demands the reduction of a drive likewise motivates all the instrumental acts necessary to reduce the drive. If an instrumental act, anticipation or apprehension, is in error, then the original drive rejects it and selects another until the individual has reduced his or her drive and avoided pain or displeasure. The drive in the structure of either purposive act is the governing force which guides individuals in their selection of right acts rather than wrong ones. Indeed the field of human ethics arises from selectivism as do our comprehensions of truth, beauty and value. Evidence for this is given in the subsequent discussions of other selective systems.

The structure of the purposive act, appetitive and aversive is the simplest example or model of what Pepper terms selective systems.[10] The following selections deal with a discussion of the other selective systems which Pepper identified and which culminate in what he termed the social adjustment theory.

In his selectivistic world hypothesis, Pepper is essentially providing a method for looking at and understanding the world in terms of human systems. These systems operate by actively selecting valued human behaviours necessary for the survival and happiness of individuals and

societies. Comprehending the world from the perspective of selective systems based on an analysis of purposive behaviour allows an individual to ask questions about motivation, intention, human free will, individual vs. collective good, and aesthetic quality, to name a few. In so far as it accomplishes or presents this method of inquiry, selectivism contributes to a broader interpretation of how the educational process might pursue the notions of excellence. This is discussed in Chapter V.

Pepper identified eight selective systems in his work Concept and Quality and it is the intent of this author in the next section of this chapter to first identify these systems for the reader; second, to demonstrate how each represents selectivism in operation; third, to describe the hierarchial lines of legislation existing between these selective systems and how such legislation gives rise to Pepper's theory of social adjustment. Eight selective systems and the values and ethics associated with them are identified and discussed in the following sections.

SELECTIVE SYSTEMS

The selective activity of individual purposive activity has been the topic of discussion thus far. There are however, other structures in existence which contain elements of purposive acts and selective behaviour. Pepper classified eight selective systems as follows: (1) Consummatory and Riddance Fields, (2) Appetitive and Aversive Purposive Structures, (3) Personal Situations, (4) Personality Structures, (5) Social Situations, (6) Social Institutions, (7) Cultural Patterns, and (8) Natural Selection.[11] Each of these selective systems exhibits characteristic purposive activity and each exists at a certain level of integration in the structure of the world and is dependent upon the levels of systems above and below it.

Outlining the higher levels of integration into which purposive structures enter, the selective activity of the split dynamics of the drives becomes more obvious. Recall that the split dynamic nature of a drive selects certain acts as good and others as bad in assisting an individual to attain a goal or avoid pain. In addition to selecting the good from the bad, there also exist differentiations between what act is right or wrong, brings pleasure or displeasure, success or failure. Clearly the structure and dynamics of purposive activity function to provide values and an ethical system necessary for human planning and decision making. Monast, a scholar who examined and critiqued Pepper's selectivism, felt that Pepper actually discovered selectivism in his earlier articulations on value theory and ethics.[12]

The hypothesis which Pepper established was that selective systems are what determine human values. He then defined selective systems using the following definition he felt would cover all values an individual might encounter in life:

> A selective system is a structural process by which a unitary dynamic agency is channelled in such a way that it generates particular acts, dispositions, or objects (to be called trials), and also activates a specific selective agency (to be called "the norm") by which some of the trials are rejected and others are incorporated into the dynamic operation of the system.[13]

It is the intent of this thesis now to examine the eight selective systems identified by Pepper in light of the above definition. Essentially the first four selective systems deal with the purposive behaviour of individuals, while the remaining four refer to the behaviour of societal groups of individuals. The first two selective systems will be reviewed

only briefly as they have been the focus of discussion in this chapter thus far, in outlining the structure of purposive activity. The selective systems are reviewed with respect to the dynamic selection of values inherent in each.

Consummatory and Riddance Fields

Earlier, in the discussion of the structure of an appetitive act the final goal of purposive behaviour was identified as the quiescence of the drive initiating the behaviour. The example was given of a thirsty individual seeking water. The consummatory phase of the act occurred when water was obtained and his or her thirst was quenched. Paralleling the consummatory phase was the riddance pattern of an aversive act. Values generated in the consummatory and riddance fields are "affective values" and are described as pleasant or unpleasant.[14] Pleasure is most often associated with the consummatory phase of an appetitive act, such as the obtaining of water to quench thirst and the enjoyment accompanying the cold taste afterwards. Pain or displeasure is associated with the riddance pattern of an aversive act and acts as the stimulus for initiating evasive action to protect the individual. The example given was fear of pain from bee stings. Thus the distinguishing characteristic which differentiates appetitions from apprehensions in value terms is whether the final goal of the purpose is positive and pleasure giving or is the riddance of something unpleasant.

In summary, affective values are representative of an individual's basic needs and drives and represent the lowest level of integration in the hierarchial schema of selective systems. The selective system immediately

above this level is known as the level of appetitive and aversive purposive structures.

Appetitive and Aversive Purposive Structures

Human behaviour is also guided by the selection of decisions based on values which Pepper terms conative-achievement values.[15] Conative-achievement values refer to the success or failure of achieving desires and needs. The values of success or failure are inherent in both the appetitive and aversive types of purposive activity. Conation refers to desire either for the achievement or aversion of something. Total achievement however is defined as both a phase of initial desire as well as a final phase of successful attainment or aversion. This is why the values of success vs. failure are termed conative-achievement values.

As was mentioned earlier in this chapter, success is the value resulting when correct anticipations and apprehensions are selected by the dynamics of a purposive act. Such successes may be intermittent in the course of a purposive act and result in bringing an individual closer to the attainment of his or her final desire. Additionally the attainment of the final goal and the quiescence of the initiating desire or need also yields a value of success. Paralleling this, the avoidance of an unpleasant or painful object by getting rid of the offending object represents the value of success in an aversive act.

If an individual in the course of attaining an end goal anticipates incorrectly one or more of the means for obtaining it, frustration occurs and these incorrect acts or anticipations will be discarded by the individual. According to the dynamics of purposive behaviour, this is

"learning" occurring in an individual adjusting to his or her environment. Correct acts are selected and incorrect ones discarded. The selective dynamic operates in aversive behaviour if an individual must avoid a potentially harmful object in the environment. An anticipatory set or apprehensive set which proves to be in error is valued as unsuccessful and discarded from the guiding behaviours an individual uses to interact with the environment.

In the process of an appetitive act it should be noted that affective values dominate over the conative-achievement values.[16] By example consider an individual satisfying his or her drive to quench a thirst based only on achievement values. This would mean that the behaviour exhibited would always be a mere gulping of water until thirst subsided, since this would be the quickest way of attaining achievement of the goal. This behaviour however, if sometimes indulged in at first, is usually followed by a calm and obviously pleasurable drinking of water for its coolness and taste. In other words, the quiescence of the drive for quenching thirst slows down and is taken over by the affective values in the consummatory phase of an appetitive act. The dominance of affective values over conative achievement values is important to note for subsequent discussions of Pepper's concept of the lines of legislation between selective systems.

Thus far, the first two levels in the hierarchial schema of selective systems have been examined in respect to the values their split dynamics yield. The next level of selective system which needs to be examined is known as the "personal situation".

Personal Situation

Two selective systems with their corresponding values of success vs. frustration and failure, and pleasant vs. unpleasant have been shown to be generated by the single purposive act. However, most individuals are involved in more than one purposive activity at the same time. In other words behaviour is based on more than one need or desire occurring simultaneously. This accounts for what Pepper terms the personal situation.[17] A personal situation is also a selective system. In a personal situation each of the purposes occurring simultaneously in an individual has its own drive for maximizing its own values.[18] These drives and desires are adjusted to one another so that a maximum value for these purposes acting as a group or whole can be obtained. To the extent that a person is capable of attaining maximum joint value from the many needs operating simultaneously within himself or herself, that person may be said to be prudent. Failure to obtain this joint value is imprudent.

Prudence and imprudence are the values yielded by the selective system of the personal situation. Usually people behave in prudent ways because committing an imprudent act can sometimes result in irreparable damage or injury to oneself i.e., it is imprudent to step out in front of heavy traffic crossing the street. However imprudent acts do occur and are the result of incorrectly choosing the best means of attaining a desired end. An example is crossing the street without the safety of stoplights to get to the other side of a busy road.

Imprudent acts are also the result of misjudging or improperly selecting what it is that will give oneself the most value at a particular time. In

otherwords an error is sometimes made in adjusting all the drives and needs occurring in an individual to produce a desired goal with particular consequences. The consequences of the behaviour may be in error, however, because of the ability to learn from reward and punishment, most individuals do not repeat imprudent acts. Again, selective activity in the system can be seen in the establishment of a collective value from simultaneous needs and in the choosing of alternatives to reach this end value. Incorrect choices are corrected for, not repeated, and are discarded from an individual's cognitive structure.

To date, this section has examined the first three selective systems dealing with the purposive behaviour of individuals. Moving up Pepper's hierarchy brings the reader to the last selective system associated with the individual, that of personality structure.

Personality Structure

Personalities develop as a result of an individual's personal and social situations and personalities are, according to Pepper, selective systems.[19] There is, however, a major difference which exists between the selective system of the personality structure and the structures of single purposive acts and personal situations. The difference is that the intermediate means or trials for obtaining a desired end are not actual instrumental acts in a personality structure but rather are dispositions for these acts. The character traits in an individual's personality are the dynamic dispositions ready to go into action in appropriate situations.[20]

Examples of these dispositions or traits are reflexes, basic drives, capacities for learning, acquired habits, roles, egos, etc. Some character traits are conscious and may be found in the ego and others are unconscious and not subject to the voluntary control of an individual. Character traits are selected or discarded by the personality selective system. In other words they are either incorporated into the personality or rejected from it.

The drive in this selective system is the need for integration of the personality. When character traits exist in harmony this is the sign of an integrated personality. If one characteristic conflicts with others frustration occurs and such a disposition tends to be ejected from the personality. In summary, the personality structure as a selective system yields the values of an integrated personality or an unintegrated, neurotic one.

The importance of the hierarchial nature of Pepper's selective systems becomes apparent when one realizes the greater application of the selective dynamics of personality structure over the dynamics of personal situations and single purposive acts. The selective system of a personality structure selects characteristics which will be effective for a person's lifetime. This has a more wide ranging impact on an individual than the values selected by specific acts. Consequently the personality structure is located higher on the cosmic scale of selective systems.

Having completed an overview of the selective systems operating in the purposive behaviour of individuals it is time now to examine the selective systems that generate social values. According to Pepper's hierarchy there

are three major selective systems generating social value.[21] These are the social situation, the social institution, and the cultural pattern.

The Social Situation

This system is selective of acts performed by persons in a social situation.[22] Ethical thinking is most often seen operating at this particular level of selective system because moral values emerge when individuals have to decide what is right or wrong in their dealings with other individuals.

In a social situation the dynamics of selectivism are seen operating through the joint interests or needs of the persons involved in the situation. The aim is to reduce tensions between individuals and to increase satisfactions and, consequently, feelings of pleasure. Tension is reduced by bringing the needs of the individuals concerned to quiescence or by mutually attaining goals and desires. If an incorrect method of accomplishing this is selected, tension in the social situation will increase and the system must correct for this by choosing an alternative means to accomplish joint or mutual satisfactions for the persons concerned. Whenever people are together in a social situation the selective system operating aims to reduce frustration and tension and maximize happiness. The resultant values or acts yielded by this selective system are commonly described as congenial or uncongenial to the situation.

When a person is involved in a social situation he or she is also involved in the social institution and cultural pattern in which the situation arose. It is the selective system of the social institution which will be examined next.

The Social Institution

As a selective system the social institution can be seen operating in the individuals and objects which comprise the institution. For example, a religious institution is comprised of people, a church, and various symbols representing the religion. The acts selected or discarded by the system of a social institution yield values of conformity and nonconformity. Such a system sanctions conformity via (1) designated officials, i.e. priests or police or the courts, (2) public approval or disapproval, and (3) a person's own conscience which demands conformity to social customs and laws.[23] Usually the internal sanctions of one's conscience are sufficient for an individual to conform to society to a certain degree and external sanctions such as the courts or public approval are not required to acculturate a person to his or her society.

Referring once again to the definition of a selective system, the requirements of the institution represent the final goal of the purposive behaviour, the means of achieving the goal are through the acts of persons subject to the institution; the drive instigating all of this is an individual's conscience - internal sanction, and external societal pressure. Pepper offers the following description of these.

> If a person is a member of a social institution he is committed to the demands of the institution and by the same committment to perform the acts demanded by the institution as means to its functioning.[24]

While social institutions function as selective systems, they in turn comprise the content of the larger selective system of a culture.

The Cultural Pattern

Cultural patterns may be defined as a collection of social institutions.[25] As a selective system, a culture or cultural pattern yields the positive or negative values of harmony or discord. A culture is harmonious if it can integrate the various social institutions comprising it. The goal of societal integration is twofold. First it represents the attainment of maximum satisfaction for the members of a society. Second, it seeks the attainment of maximum security for society. The important point to remember here is that these two needs are often antagonistic to one another.[26] Consequently there are two types of social integration and cultures which develop, namely the individualistic, democratic society and the authoritarian society.

Pepper provides an excellent overview of the contrasts between these two social integrations, which are outlined in Table V.[27]

TABLE V: CONTRASTS OF SOCIAL INTEGRATION

Functional Authoritarian Society	Individualistic Democratic Society
1. Survival as dominant motive.	1. Happiness as dominant motive.
2. Basic right of society over individual.	2. Basic right of individuals and instrumental view of society.
3. Centralization of government.	3. Decentralization of government.
4. Efficiency as chief aim of social organization.	4. Opportunity for individual enterprise and satisfaction as aim of social organization.
5. Discipline or team play as social attitudes sought.	5. Initiative or tolerance as social attitudes sought.
6. Duty or loyalty as personal attitudes sought.	6. Satisfaction or compromise as personal attitudes sought.

From Table V it can be seen that survival is the dynamic force governing an authoritarian society, while satisfaction governs the individualistic society. Actual societies are usually combinations of these dynamics. Table V indicates extreme contrasts. Certain societies however are essentially democratic and individualistic while others are essentially authoritarian.

As a selective system a cultural pattern generates positive value when the institutions in that society are culturally integrated and work harmoniously with one other. Negative value arises in the disintegration of culture when institutions conflict with one another. Culture acts to select and create institutions which can function under its social pressure, and eliminates or transforms institutions in conflict with the harmonious functioning of the culture as a whole.

Thus far, seven selective systems based on the dynamics of purposive acts and drives which maximize satisfaction and reduce pain, tension or conflict have been examined. The eighth and final selective system which Pepper identified is that of natural selection.

Natural Selection

The goal of natural selection as a selective system is the preservation of a species, in this case humankind in its environment. The means or trials selected by the system are the individuals created for the process or, in biological terms, the genetic variations formed by reproduction. The environment selects and favors those individuals better adapted for survival and disregards those less well adapted. Thus adaptability is the

positive value yielded by this selective system; non-adaptability or maladaption is the negative value generated.

Pepper is quick to illustrate however that natural selection in man has more of an impact upon social structures than on individuals. Natural selection has evolved or become converted into the concept of cultural selection.[28] In cultural selection, acquired characteristics or learnings of that culture which have proved beneficial are passed on from one generation to the next for the survival of a particular culture. Such characterisitics are passed on by the process of acculturation. In this way later generations cumulatively profit from the experience of older ones.[29] In man's domain, to the concept of survival of the fittest individual has been added the concept of survival of the fittest society acquired culturally. Pepper comments:

> The important thing for man is to be member of a society with a cultural pattern of high survival value, one adapted to its physical and particularly to its social environment.[30]

Most crucial to recognize at this point is that selective systems one through seven exhibited the dynamics of drives for the purpose of maximizing satisfactions; the dynamics of natural selection exhibit drives for the survival of the species. Two distinct dynamics of purposive drives should then be acknowledged by the reader, those for satisfaction and those for survival.

For the sake of additional clarity, the following paragraph and concept map summarize and reiterate the developments occurring in this chapter thus far. The world hypothesis which Pepper discovered and termed selectivism has been described from its point of origin in the root metaphor of the purposive act and operationally identified in eight selective systems.

The conceptual and qualitative aspects of the purposive act have been described, as have the qualitative values which arise from each of the various selective systems. Schematically the concepts discussed in this chapter to this point are illustrated in Figure VI.

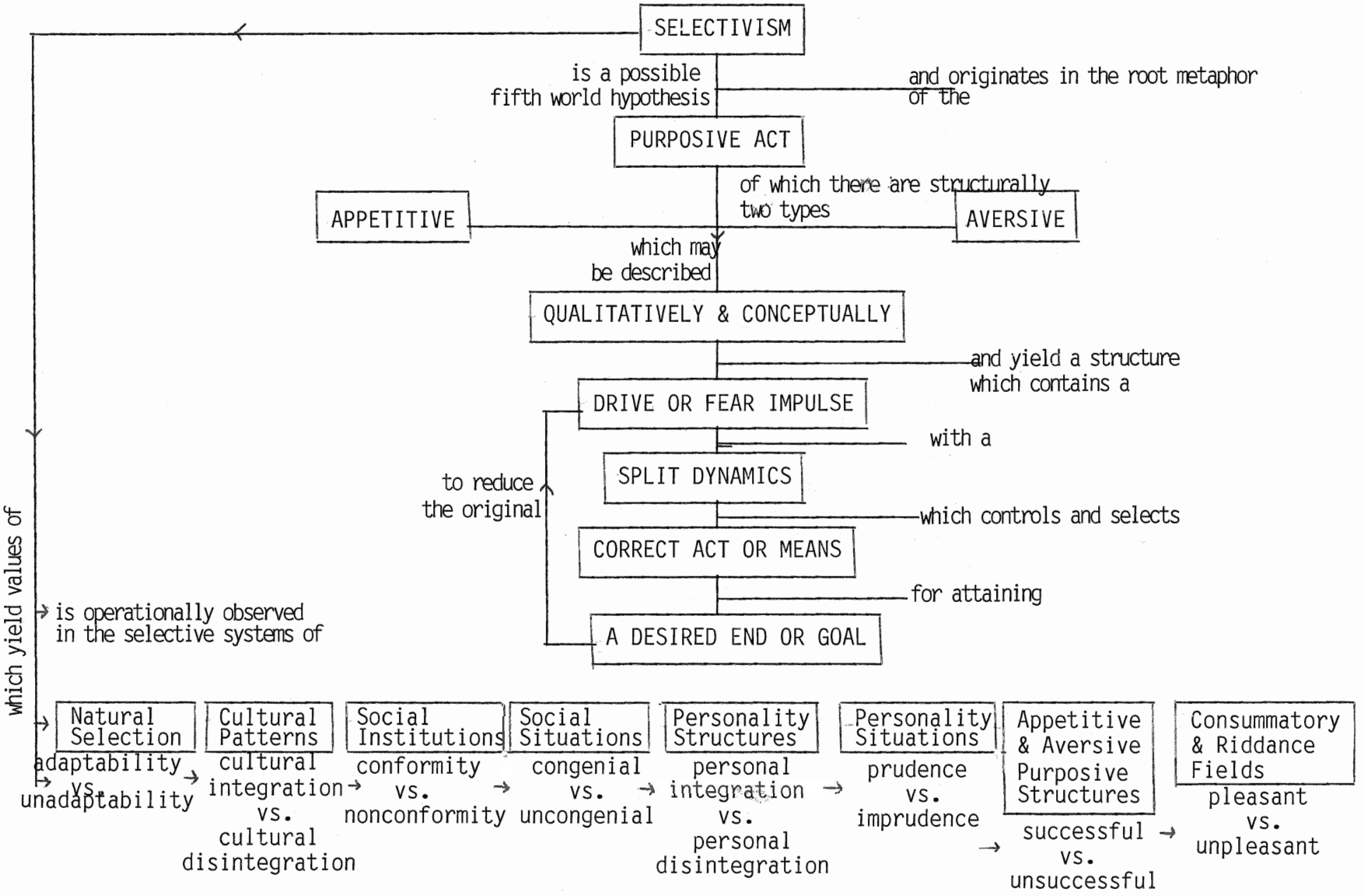

FIGURE VI: CONCEPT MAP OF WORLD HYPOTHESIS - SELECTIVISM - DEMONSTRATING ITS DEVELOPMENT FROM ROOT METAPHOR TO NATURAL SELECTION

In providing evidence for the existence of the world hypothesis of selectivism and the structure of purposive behaviour, Pepper has described various sytems which exist in the world and exemplify the operational characteristics of selectivism. He takes this exploration further, however, in his theory of social adjustment.

Essentially in his social adjustment theory Pepper demonstrates that selective activity exists in a hierarchial structure in the world. He indicates that the selective ability of natural selection which is needed for survival of the species is dominant over all the other selective systems. The other selective systems are concerned with fullfilling the needs and desires of humanity to maximize harmony, happiness, safety and security. The remaining portions of this chapter provide the reader with an overview of Pepper's social adjustment theory and a brief summary of selectivism as it has been explicated thus far.

Social Adjustment Theory

From the preceding review of selective systems and the values they generate it can be demonstrated that, under certain conditions, one system exerts control over another and some values may have greater priority than others. Pepper provides an insight into the legislation of one system over another by arranging them schematically in order of their comprehensiveness. (See Figure VII) [31]

Dynamics of Purposive Drives	Selective Systems	Dynamics of Natural Selection
Open Society	Cultural Pattern (integrated vs. unintegrated) - increase social pressure -	Functional Society
	- decrease social pressure	
Decentralized	* Social Institutions (conformity vs. nonconformity) - increase social pressure -	Centralized
	- decrease social pressure -	
Freedom	Social Situation (congenial vs. uncongenial) - increase social pressure -	Security
	- decrease social pressure -	
Initiative	Personality Structure (integrated vs. unintegrated) - increase social pressure -	
	- decrease social pressure -	
Enjoyment	Personal Situation (prudence vs. imprudence) - increase social pressure -	Achievement
	- decrease social pressure -	
Pleasure	Purposive Structure (successful vs. unsuccessful) - increase social pressure -	Success
	- decrease social pressure -	

*The level of Social Institutions has been added by this author because at the time of the writing of Ethics, which this model is excerpted from, social institutions was not considered a separate selective system. Its discovery occurred later in Pepper's Concept & Quality.

Note that for the purposes of this schematic the two types of purposive structures, appetitive and aversive have been coalesced into one.

FIGURE VII: LINES OF LEGISLATION AMONG SELECTIVE SYSTEMS AND INDIVIDUAL AND SOCIETAL VALUES

Recall that earlier it was mentioned that there are two distinct dynamics of purposive drives, those which lie in the first seven selective systems dealing with maximizing human satisfactions and those which maximize survival of the species.

Pepper is indicating via this diagram that there is a bipolar action between the dynamics of purposive drives and the dynamics of natural selection. Both of these dynamics influence the values chosen by the selective systems. The influence is largely the result of societal pressure. By example, consider the selective systems' level of the social institution. When life is harmonious for an institutions there is little pressure placed on individuals to conform to the norms of the institution. Instead people are given a "bit of slack" and are not expected to conform completely but are given more freedom from rules and regulations. If on the other hand an institution is in trouble, suddenly its members are required to sacrifice fredom and conform to the rules until the survival of the institution is ensured.

This oscillating between individual satisfactions and values and the survival of societal values represents the dynamics and ethical assumptions inherent in Pepper's social adjustment theory. The key to the dynamics of the theory lies in the fact that whenever the survival of the system is threatened, individual needs are subjugated. That is to say that the dynamics of natural selection dominate over the dynamics of purposive acts when the survival of a group is at stake. This implies that an individual needs to develop strategies in life for maximizing his or her happiness (for maximizing pleasures and minimizing pains). This happiness can only be achieved if an individual can keep societal pressures from

survival at a distance. Individuals can accomplish this by keeping themselves, society and the environment in a state of mutual accord with one another.

People cannot be totally free of society's pressures because individuals inherently possess societal values through acculturation. Human beings are both "docile animals with basic drives and social animals conveying an inheritance to the next generation."[32]

By exercising social control however, individuals and groups of individuals can create social organizations that are well adapted to their environment and are not in danger of becoming culturally extinct. Since cultural survival is then not a concern, individuals living within this particular social structure are freed of some of their obligations to society and can securely and freely seek to maximize their own happiness.

The two most common social organizations created by humans are the authoritarian and democratic societies. The former stresses societal rights over individual rights and is primarily concerned with the values of human security in social organizations. Democratic societies give greater attention to the needs of individuals in the social organization. The salient point is that often in both of these social organizations, the needs of the individual and the needs of society are at odds with one another.

For Pepper, the solution to such a conflict is the concept of an adjustable social structure based on the dynamics of selectivism.[33] Such a society can be centralized in authority in a state of emergency and

decentralized for individual satisfactions in times of peace.[34] In selectivistic terms the needs of a social organization will initiate whatever inherent selective dynamics are required to assist that organization to survive. This is the premise for Pepper's "social adjustment theory."

Thus, it can be observed that selectivism based on the root metaphor of purposive activity is operationally evident in a wide range of events in the world. Evidence for its dynamics exist in individual human behaviour as well as in the behaviour of human cultures. Selectivism offers an interpretation about the nature of the dynamics of human systems.

SUMMARY

This chapter has explored the development of selectivism from its root metaphor to its application as a world hypothesis capable of enriching our understanding of human systems in the world. Selectivism has been tentatively identified as a fifth world hypothesis arising from the root metaphor of human purposive behaviour.

Two types of purposive acts have been discussed: the appetitive and the aversive. Both of these acts may be described qualitatively and conceptually. They yield a structure comprised of a drive or fear impulse with a split dynamics which controls and selects the correct acts or means for attaining a desired end or goal. This attainment in turn reduces the original drive or fear impulse.

Selectivism and the dynamics of the purposive act have been operationally observed in a range of human selective systems which yield a variety of

affective, conative-achievement and survival values. Finally, the dynamic interplay between individual and societal values have been exemplified in Pepper's social adjustment theory.

Further comments regarding the nature and identity of selectivism as a world hypothesis are addressed briefly in chapter IV. Additionally Chapter IV critiques the strengths and weaknesses of selectivism and suggests a strong conceptual relationship between Pepper's selectivism and the systems philosophy of Ervin Laszlo.

FOOTNOTES

1. Stephen C. Pepper, Concept and Quality - A World Hypothesis, (LaSalle, Illinois: Open Court Publishing Co., 1967), p. 17.

2. Stephen C. Pepper, Ethics, (New York: Appleton-Century Crofts Inc., 1960), p. 314.

3. Stephen C. Pepper, Concept and Quality - A World Hypothesis, (LaSalle, Illinois: Open Court Publishing Co., 1967), p. 19.

4. Ibid., p. 514.

5. Stephen C. Pepper, Ethics, (New York: Appleton-Century-Crofts Inc., 1960), p. 24.

6. Stephen C. Pepper, Concept and Quality - A World Hypothesis, (LaSalle, Illinois: Open Court Publishing Co., 1967), p. 22.

7. Ibid., p. 22.

8. Stephen C. Pepper, The Sources of Value, (Berkeley and Los Angeles: University of California Press Ltd., 1958), p. 103.

9. Stephen C. Pepper, Ethics, (New York: Appleton-Century-Crofts Inc., 1960), p. 31.

10. Ibid., p. 34.

11. Stephen C. Pepper, Concept and Quality - A World Hypothesis, (LaSalle, Illinois: Open Court Publishing Co., 1967), pp. 523-551.

12. Joseph Horace Monast III, Evidence, Common Sense and Metaphysical Systems: The Philosophical Methodology of Stephen C. Pepper, Tulane University, Ph.D. dissertation, 1976, p. 382.

13. Stephen C. Pepper, Concept and Quality - A World Hypothesis, (LaSalle, Illinois: Open Court Publishing Co., 1967), pp. 523-551.

14. Ibid., p. 519.

15. Ibid., p. 519.

16. Ibid., p. 530.

17. Ibid., p. 531.

18. Ibid., p. 531.

19. Ibid., p. 532.

20. Ibid., p. 532.

21. Ibid., p. 534.

22. Ibid., p. 535.

23. Ibid., p. 538.

24. Ibid., p. 539.

25. Ibid., p. 540.

26. Ibid., p. 540.

27. Ibid., p. 541.

28. Ibid., p. 547.

29. Ibid., p. 547.

30. Ibid., p. 547.

31. Stephen C. Pepper, Ethics, (New York: Appleton-Century-Crofts Inc., 1960), p. 328.

32. Stephen C. Pepper, The Sources of Value, (Berkeley and Los Angeles: University of California Press Ltd., 1958), p. 680.

33. Ibid., p. 685.

34. Ibid., p. 685.

CHAPTER IV

SELECTIVISM AND SYSTEMS PHILOSOPHY

INTRODUCTION

Selectivism as a world hypothesis provides a method for interpreting and perceiving events in the world in terms of the dynamics of human systems. Individuals, groups, and societies all interact with each other and all other events in the world relative to human needs and desires. Interactions are purposive and the type of behaviour exhibited during them is dependent upon the intrinsic needs of the individual or individuals involved, i.e. behaviour may be appetitive or aversive.

Human needs and the dynamics initiated to attain and fulfill them give rise to values, ethical assumptions, and judgements about what is truthful and beautiful in the world. In this sense selectivism is a world hypothesis similar to the other four in its provision of evidence for what should be considered worthwhile events in the world. This is certainly important for those involved with pursuing educational excellence. Further discussion about educational excellence and selectivism can be found in Chapter V.

This chapter begins by offering a brief critique of the nature and identity of selectivism. This is followed by a discussion of the strengths and weaknesses of selectivism and a comparison of selectivism and Laszlo's systems philosophy. The critique of the nature and identity of selectivism is deliberately brief for two reasons. First a discussion of the nature and identity of selectivism is beyond the scope of this thesis and is a topic unto itself. Second, if selectivism as it exists can be shown to contribute to the concept of educating and educational excellence, then

extensively debating its actual identity is secondary to the intent of this thesis.

SELECTIVISM - ITS NATURE AND IDENTITY - A CRITIQUE

There are two major questions which have concerned scholars who have examined Pepper's selectivism: first, whether it is a hypothesis for explaining the nature of the world, and second, whether selectivism is a new and original world hypothesis. In addition, selectivism has also been considered as a possible revision of one of the other world hypotheses or synthesis of the other four world hypotheses. Pepper commented in his book Concept and Quality that selectivism might possibly be a radical revision of contextualism.[1] He was unaware when be began Concept and Quality what he would discover about the nature and identity of selectivism and because he was strongly contextualistic in his thinking, was no doubt overly conscious of the similarities between some of the characteristics of contextualism and selectivism. This awareness, no doubt, prompted him to comment about the nature of selectivism as a possible radical revision of contextualism.

In his analysis of the original four world hypotheses Pepper feels that two of the hypotheses are slightly more adequate in their own right: mechanism closely aligned with the physical sciences and contextualism with its stress upon the qualitative immediacy of the specious present. These two theories account for a less "forced" account of the evidence of the nature of the world than either formism or organicism.[2]

For Pepper the world hypothesis with the potential for the greatest

adequacy lies between mechanism and contextualism.[3] Selectivism appears to be a synthesis using the conceptual determinateness common to mechanism and qualitative feelings common to contextualism.

Recall the qualitative/conceptual aspects and values of the purposive structure. Such a synthesis, however, is not eclectic because the characteristic has arisen directly from the root metaphor of the purposive act and not from a fusion of the qualities of mechanism and contextualism. The newness or uniqueness of such a hypothesis relates to the fact that it is based on a new root metaphor, the purposive act. Thus world hypotheses may possess similarities without being fused conglomerates. Fusion and eclecticism imply an overlapping of world hypotheses in which their root metaphors and categories are interwoven for no purpose other than to meld the best of both theories together to see what results.

Eclecticism is short-term, peacemeal and lacks direction. Pepper however is not eclectic. He has synthesized characteristics of organicism, contextualism and mechanism into the hypothesis selectivism where they seem inherent in the structure of the system. Organicism is operationally evident in the social adjustment theory with its emphasis on the hierarchial integration of selective systems. Mechanism is evident in the dynamics of purposive activity with its emphasis on the interactions between individuals and their environments. Contextualism is evident in the notion that purposive activity can be qualitatively felt and described.

Additional evidence indicates that Pepper regards selectivism as an interpretation of the world where aesthetic and qualitative feelings dominate over the conceptual, scientific interepretation. This can be seen in his

social adjustment theory, with its emphasis on the values and ethics generated by selective systems to describe the nature of society and social institutions. On the dominance of qualitative feelings Pepper asserts that "felt qualities are the ultimate facts of the world."[5]

This emphasis on felt qualities has led many scholars to believe that selectivism is really a deeper form of contextualism. Monast feels that Pepper has presented a theory which is contrary to modern scientific and philosophical thought when he creates in selectivism a "firm place for feeling in the world, at the risk of denying a firm place to cognition."[6] Monast clearly feels that Pepper allows his contextualistic and aesthetic leanings to prejudice the development of selectivism into what Monast believes is a one sided aesthetic interpretation of the world. This argument is short-sighted in this author's opinion, as Pepper deals with means-end relationships as objects of cognition and, in so doing, does not deny the cognitive perspective. Pepper is guilty perhaps of over-emphasizing qualitative feelings, but not at the risk of denying cognitive perspectives.

It is the contention of this author that indeed Pepper strongly emphasizes the qualitative feeling aspects of selectivism in his application of the world hypothesis as a provider of evidence about the world. However this does not give rise to the conclusion that selectivism is a more radical or deeper form of contextualism, nor that this emphasis denies the cognitive perspective.

This author feels that selectivism is a method for analyzing the processes used to create life experiences requiring interpretation

by world hypotheses. In seeking to increase and enrich the meaning of events in the world it is necessary to interpret these events in some way and to construct knowledge claims about them.

Formism, mechanism, contextualism, organicism and selectivism all provide interpretations of the nature of events. But why do events need to be interpreted and how do humans come to experience events in the world? People need to interpret and comprehend events in order to give meaning to their existence. Without meaning life has no purpose. People necessarily experience events because these events are the consequences of actions which are subjected to the limitations and dynamics of purposeful activity.

Selectivism explains purposive behaviour as the cause of human experiences and events in the world. Such events may be the result of the purposive behaviour of individuals, societies, social institutions or cultures. For example, values are knowledge claims which possess emotional meanings for people. As knowledge claims, values are also alterable, changing events in the world. Values according to selectivism are events which arise out of the dynamics of human purposive activity, i.e. the value of success arises out of the consequences of attaining a desired end or goal in a human appetitive purposive act. These values give meaning to human events in the world. Selectivism interprets people's search for meaning as a constant quest for the good, the true, and the beautiful because these are the actual qualitative events and values yielded from the dynamics of human purposive activity.

In enriching meaning for themselves, people can choose alternate metaphors to assist in interpreting and collecting evidence about the nature of events. Meaningful events should possess both "felt" and "intellectual" significance. Selectivism asserts that all events created out of human purposive activity yield qualitative (felt) and conceptual (intellectual) aspects. Furthermore, selectivism asserts that events may be known and made meaningful by applying qualitative/conceptual modes of interpretation to our experiences of them.

Selectivism as a world hypothesis is a method for understanding and explaining the genesis and maintenance of truth, beauty, right and wrong, etc. in terms of purposive experiences. Purposive behaviour gives birth to events and experiences in the world and can also serve as a method for interpreting them. In explaining the origins of experience resulting from purposive behaviour, selectivism goes beyond the interpretive and corroborative role of the other world hypotheses. In this sense, selectivism is a more encompassing hypothesis about the nature of the world and thus, potentially more adequate than the four other world hypotheses. However in its interpretive role, selectivism shares a place on the continuum of the other adequate world hypotheses. Additionally it exists outside the interpretive realm as a process describing the origins of human experiences.

Selectivism is both a cognitive process for understanding the origins of life experiences and a method for qualitatively interpreting them. Thus, selectivism is perhaps best regarded as possessing a dual identity as a world hypothesis and as a process creating experiences that require

interpretation by world hypotheses. Harrell in his work on the "Social basis of Root Metaphor" appears to exhibit a similar belief about the identity of selectivism, although he is convinced that selectivism arises out of contextualism.[7]

This author feels intuitively that Pepper equated the "nature of the world" with the "human nature of the world". In other words Pepper felt that we as human beings can only perceive and construct reality in terms of human behaviour and human values and ethics. For example individuals can choose to construct reality based on common sense analogies. Thus people can interpret events in terms of the root metaphors of formism, mechanism, organicism, contextualism or selectivism.

However root metaphors are events constructed out of purposive human behaviour. i.e. the need to interpret the world in some fashion providing the most meaning for an individual. This author believes that in selectivism Pepper has provided a metaphysics which explains the origins of the root metaphors of world hypotheses. Selectivism is perhaps best regarded as the origin or the root metaphor of the root metaphor theory.

In conclusion selectivism is best regarded as possessing a dual identity. It is a cognitive process for understanding the origins of human experiences of the world and is also a method for interpreting them. The discussion of the identity of selectivism ends at this point, for the two reasons stated earlier in this chapter. First, the nature of such a discussion is beyond the realm of this thesis and deserves much greater attention from future analysis of Pepper's metaphilosophy. Second, the dual identity of selectivism as a world hypothesis and as a cognitive

process explaining the derivation of life experiences is most crucial to this thesis as it contributes to a further understanding of the contributions of metaphilosophy to educating and educational excellence. The contributions of selectivism to a theory of educating and educational excellence are dealt with extensively in Chapter V.

Selectivism possesses strengths and weaknesses inherent in its dual identity which are outlined in this current chapter. Also included in this chapter is a comparison of the nature of selectivism as a world hypothesis and the nature of systems philosophy proposed by Ervin Laszlo. It is anticipated that such a comparison will demonstrate that selectivism and systems philosophy are both world hypotheses dealing with purposive self-regulating systems. Laszlo's work is considered important by this author in providing structural corroboration of Pepper's metaphilosophy regarding the synthetic and ordered nature of selective systems in the structure of the world. Additionally Laszlo offers a perspective of systems philosophy as a framework for an ontology, a philosophy of mind, an epistemology, normative ethics, value and survival. These are highly similar to the categories and characteristics yielded by Pepper's selectivism.

Prior to comparing selectivism and systems philosophy however, some comment is required regarding the strengths and weaknesses of selectivism. Recall that for the purposes of this discussion, this author regards selectivism as first a metahypothesis describing the process by which human events and experiences come into existence in the world and second, a world hypothesis for qualitatively/conceptually interpreting these same events, and in so doing, enriching the meaning of these events for

individuals experiencing them. Chapter V examines further the contributions of selectivism to both the concepts of meaning and educating.

SELECTIVISM - STRENGTHS AND WEAKNESSES

Selectivism - Some Strengths of the Method

Several characteristics of selectivism appear to make it a more adequate world hypothesis than either formism, mechanism, contextualism and organicism - more adequate in the sense of possessing a broader scope and greater precision in interpreting the evidence of the world. First, selectivism stresses a view of the world which accounts not only for our perceptions of events but also for our qualitative feelings concerning these events; it possesses a dual qualitative/conceptual cognitive aspect. A battle has long raged in educational circles and in the history of cognition as to what constitutes the best method for obtaining knowledge of the world. Is it via the empirical sciences with their emphasis on objective perceptions of the world or via personal awareness with its emphasis on subjective qualitative experiences? Quantitative analysis has longheld a position of greater prominence than qualitative analysis, as a provider of evidence. This dualism, which exists between the arts and sciences, arises from an inability to mediate the distinction between qualitative and conceptual experiences of life.

Selectivism allows an individual to view an event "from without", or to view it from the perspective of "living" it and describing the feelings of living the event. The quantitative and the qualitative are

given equal recognition, indeed are an inherent, and necessary, albeit dualistic, aspect of selectivism. Purposive activity can yield qualitative and conceptual reports referring to the same item of fact. Thus two historical methods of obtaining and experiencing human knowledge meet in selectivism.

This qualitative/conceptual aspect has vital implications for selectivism as a framework for a theory of educating. Such a world hypothesis for the provision of evidence for knowledge claims implies an acceptance by educators of knowledge as that which may be experienced both qualitatively and conceptually. Additudinal differences emphasizing one method as superior to the other become obsolete arguments.

In the nature of its qualitative/conceptual duality selectivism as a world hypothesis offers (1) a harmonious alternative to an historical schism about the nature of knowledge which has plagued educators for centuries and (2) a potentially broader basis on which facts in the world may be corroborated. For example, one of the potential weaknesses of mechanism is that, if adhered to in too rigid a fashion, meaning becomes restricted to evidence which can be quantified. Selectivism stresses evidence which may be described in both quantitative and qualitative terms.

Further to this argument, selectivism, because of its inherent qualitative/conceputal aspect is potentially more appealing as a world hypothesis to a greater number of people. As was mentioned in Chapter II, it is a hypothesis which has appeal for artists, philosophers and scientists alike. The synthetic nature of selectivism can provide a common ground of understanding between various cognitive disciplines and their adherents.

Indeed the development of selectivism may represent the culmination of a striving for harmony which began early in Pepper's career. In the preface to World Hypotheses Pepper expressed his concern about the methods the logical positivists used to get at the truth of human values. Expressing his concern he states:

> To think that this question could be met in the manner of a puzzle and in terms of correlations, statistics, mathematics, and language struck me as fantastic. Here was method running away with issues, evidence and value itself.[8]

Pepper's sense of the qualitative was obviously offended by the approach of the logical positivists. Many of his writings deal with aesthetics, and his years at the University of California were spent as professor of Philosophy and Aesthetics. Yet he was consumed with developing world hypotheses as empirical methods and not dogmatic creeds, so he also possessed a strong belief in the conceptual quantitative aspect of cognition.

Selectivism to a large degree, as a synthesis of the qualitative and conceptual aspects of experiences, may represent the final harmony and solution of a conflict which has long lived in Pepper's own mind. This synthesis and duality may represent a great strength of the hypothesis in the provision of harmony between differing cognitive disciplines; conversely it may represent an inherent weakness. This will be discussed in the next section of the chapter.

Summarizing the strengths of selectivism as a world hypothesis, this author feels that the inherent conceptual/qualitative aspects of selectivism provide (1) a synthetic world hypothesis capable of providing

a cognitively broader and more generalized method of obtaining evidence than any of the other four adequate world hypotheses, and as such will contribute greatly to an understanding of educating as a quest for evidence. In this provision selectivism also offers (2) a common ground for harmonious understanding between practitioners of conflicting cognitive and aesthetic disciplines - conflicts which have existed throughout the history of human knowledge.

Thus far discussion has centered on the perceived strengths of selectivism concerning its identity as a world hypothesis. However this author feels that selectivism has an alternate identity, as a meta-hypothesis for qualitatively and conceptually describing the process by which experiences,and events come into existence in the world, laden with their inherent values.

Such an identity lends selectivism an additional strength as it relates to the knowledge realm. Here is an all encompassing hypothesis attempting to explain the origins of the very events and experiences individuals wish to extract meaning from. Selectivism asserts that events in the world arise from the dynamics of purposive behaviour and that such events may be known qualitatively and conceptually. This characteristic in selectivism provides a perspective for individuals wishing to analyze how and why events and entities come into the world. Once in the world such events are knowledge claims which may be interpreted by the methods of formism, mechanism, contextualism, organicism and selectivism.

The world hypotheses seek to interpret the evidence which has emerged. Selectivism both interprets the evidence and offers an explanation

regarding its emergence in the world. Thus selectivism contributes to a more in-depth analysis of an individual's knowledge of events in the world. Selectivism allows for an interpretation of an event or object in terms of the evidence of what is beautiful, good, valuable and truthful about the nature of an event, as well as how and why the event emerged into the world.

Some scholars might argue that applying selectivisms' in-depth analysis of purposive activity in tracing an event to its origin of emergence is engaging in reductionism. However, analysis of purposive activity is not reductionist, it is merely the mode of cognitive refinement used in selectivism to provide a more comprehensive knowledge and thus enrich the meaning of a total event for an individual. In other words, understanding the event as a whole is not lost in the analysis of how the whole emerged.

In brief summary, selectivism as a metahypothesis explaining the emergence of events in the world, most particularly the emergence of human systems, provides a greater depth of evidence about the knowledge of the world. Selectivism goes beyond being a world hypothesis for interpreting the evidence of knowledge claims for criteria of excellence for that which is beautiful, ethical, valuable and truthful; it provides a process or method for obtaining evidence about the actual origin of the event or object being judged to possess the criteria of excellence.

Selectivism - Some Criticisms of the Method

One of the highlights of selectivism is its ability to interpret and provide evidence of the nature and development of human systems based on

the dynamics of purposive activity. Pepper unfortunately applies the method almost solely to human systems. Purposive behaviour as a sample of a process in nature is not shown to demonstrate interpretive adequacy for occurrences in nature which are not the result of human purposive activity. Thus the adequacy of selectivism to interpret facts outside of human systems remains largely unanswered, indeed is not really attended to in Pepper's writings at all. In Concept and Quality, Pepper briefly addresses the issue of other self-regulatory systems at work in inorganic structures, but indicates that these "mechanisms do not meet the requirements of a selective system and are purely mechanical systems".[9] Nevertheless they are self-regulatory systems and, according to Pepper it would not be surprising if they yielded qualitative values.[10] As will be discussed later in this chapter, Laszlo's work on self-regulating systems concentrates on a broader spectrum of the cosmic structure than does Pepper's selectivism.

In an apparent lack of interest in the breadth of application of selectivism, Pepper virtually skims over and dismisses the subject earlier in Concept and Quality by stating that purposive behaviour is the most highly organized simple act which requires intelligence and any other structures which might exist are simplifications of it... "we can learn about them by a sort of simple subtraction...".[11] Pepper was perhaps uncertain what these simpler structures were composed of or perhaps he merely felt that it was not important to deal with occurrences in the world which do not lie within the realm of human intelligent behaviour.

He also addresses the existence of the problem in his earlier writings. In Ethics, Pepper mentions the instinctive reflex acitivity of insects as an example of a process differing from human purposive behaviour.[12] The instinctive chain reflex arc is the opposite of an intelligent purposive act. However an insect's major mode of adjustment to its environment is this instinctive reflex arc.

A reflex arc is a chain of acts catalyzed by a chemical hormone initiating a particular chemical need, e.g. the need for food. When the need is reduced after the final act in a series of chain reflexes there is no longer any chemical stimulation to catalyze the first link in the reflex, i.e. after eating an insect's hunger reflex subsides. Chain reflexes are physiologically and anatomically inherited and are not learned behaviours. The sequence of chain reflexes is so rigid as to cause repeated blind automatic behaviour. Instinctive reflex arc behaviour possesses no alternatives for obtaining needs.

Despite the fact that Pepper illuminates this difference between reflex arcs and human purposive behaviour the issue remains whether under voluntary or involuntary control both acts adapt an organicism to its environment. Selectivism, in its concentration on purposive selective behaviour in human systems, seems unable to account fully or empirically for the survival of insect species engaging in non-purposive activity. Therefore, as a world hypothesis, selectivism seems inadequate in interpreting the evidence of events in nature not based on human purposive behaviour. World hypotheses attempt to explain the world in its totality. To exclude a significant number of events is thus to be less than a total explanation.

The following paragraphs deal with what this author feels is a lack of flow or follow-through in Pepper's development of a theory of social adjustment from his discussion of purposive behaviour. Recall that the eight selective systems identified by Pepper culminated in a theory of social adjustment which stressed the concepts of self-regulating and hierarchial integrations between levels of selective systems. This world model of selectivism, with its emphasis on integration, possesses the characteristics of organicism so much so that this author is inclined to believe that it is a synthesis of some particulars of organicism and selectivism.

Although the synthesis is understandable there is a sudden switch in emphasis in the social adjustment theory from a concept of selective activity to a concept of integration, wholeness and adaptability. This change in emphasis provides a disorienting effect if an individual is trying to trace the root metaphor of the purposive act and dynamic selection through the hierarchy of selective systems. On reaching the social adjustment theory the emphasis on selective activity is minimal in comparison to the emphasis on the integrative activity or the lines of legislation between selective systems.

It is felt by this author that the change in emphasis creates the impression that the root metaphor of purposive selective activity has been subjugated to an organistic concept in the social adjustment theory. The concept of social adjustment has lost touch with the original root metaphor of selectivism to adopt a more organistic outlook. Pepper does not talk about legislation between systems as selective activity per se but argues

hierarchial dominance between the values yielded by the systems. Pepper may be presenting a mere change in emphasis which is slightly confusing to the reader, trying to move from concepts of split dynamics to concepts of integratedness. In changing his emphasis in this fashion Pepper is likely synthesizing elements of organicism with selectivism, but does not exemplify the synthesis adequately in terms of the root metaphor of selectivism. Consequently he runs the risk of creating in the social adjustment theory an autonomous abstraction which needs to be more clearly identified with selectivism. Indeed, Pepper in World Hypotheses indicated in the fourth maxim concerning root metaphors that "concepts which have lost contact with their root metaphors are empty abstractions."[13] It seems he is in danger of violating his own maxim.

The root metaphor of purposive activity is most certainly contained in the social adjustment theory, but the organistic concepts of integration and adaptability are emphasized more. Pepper speaks of the principle of social pressure as...

> the key to the lines of priority among human values... thus the ideal social structure for a society is thus revealed as an adjustable one ready to centralize to whatever degree necessary to meet an emergency, and ready to decentralize for the maximum personal satisfaction of the individual concsistent with security when an emergency is over...[14]

The development of thought through the selective systems based on purposive activity is given a less noticeable role in the social adjustment theory; this is somewhat disorienting. In the social adjustment theory the emphasis of the root metaphor of purposive selective behaviour changes from selective activity to an emphasis on the result of selectivity, which is adaptation.

Earlier in this chapter reference was made to the fact that selectivism is esentially a synthesis of the qualitative and conceptual aspects of experience. Such a synthesis may represent a great strength of the hypothesis because it allows for the provision of harmony between cognitive and aesthetic disciplines which have been narrowly polarized and separated from one another by interpreting the world based on only one of these aspects at the expense of the other.

Assume that Pepper was determined to find a solution to the problem of whether experience truly possesses both qualitative and conceptual aspects. The question that arises is, was he so determined that he assumed a political middle-of-the-road approach to the issue and consequently developed selectivism which gives equal recognition to the qualitative and the conceptual? Only empirical support of the contention that there is a qualitative/conceptual reality to all things will eliminate the possibility that selectivism arose out of any sense of political expediency.

Thus far this chapter has (1) critiqued the identity of selectivism, and (2) commented on some strengths and weaknesses of selectivism, perceived by this author. The following section is a comparison of the systems philosophy of Ervin Laszlo and Pepper's selectivism. It is the contention of this thesis that systems philosophy expands the adequacy of selectivism and structurally corroborates it as a world hypothesis and/or meta-hypothesis which can provide a framework for educational excellence.

Systems Philosophy and Selectivism

Closely paralleling the selectivism of Stephen Pepper is the systems

philosophy of Ervin Lazlo. Both scholars developed their respective philosophies independent of any knowledge of each others efforts. Pepper, conducting a review of Laszlo's book in the Journal of Philosophy and Phenomenological Research comments:

> ... my world hypothesis and Laszlo's in his book under review so closely resemble each other in principle that one might think we had influenced each other. Actually they were independently developed without either of us knowing what the other was doing until very lately.[15]

The remainder of this chapter articulates systems philosophy for the reader, while expanding on the similarities and differences arising out of its comparison with selectivism.

SYSTEMS PHILOSOPHY/SELECTIVISM - SIMILARITIES

Systems Philosophy/Selectivism - Derived from Similar Concerns

As was mentioned earlier in this chapter, Pepper for many years of his life was concerned with the apparent and persistent duality between the conceptual and qualitative aspects of experience. Laszlo indicates that he also is a philosopher concerned with this same duality, and with finding solutions to the questions of life, solutions possessing scope and precision. He comments:

> ... I was struck by the tremendous refinement of the answers proposed by great philosophers, and the equally tremendous wealth of information offered by great scientists. However, I was still not getting satisfactory answers to my questions, because the philosophical answers lacked an adequate factual basis, and the scientific answers tended to be either restrictive or naively generalizing from the viewpoint of a speciality...[16]

Laszlo, like Pepper, discovered Whitehead's application of scientific data to philosophical synthesis. Laszlo comments:

> ... there must be someone on the contemporary scene who is capable of combining philosophic astuteness, with scientific informedness, I thought; and eventually I came across Whitehead...[17]

Both Pepper and Laszlo embarked on quests for a synthetic hypothesis, which in providing scope and precision about the nature of the world would reveal the reality of human experience to be both qualitative and conceptual and which would provide a point of connection for science and philosophy. A further comparison of selectivism and systems philosophy shows both hypotheses to be structurally self-regulating systems.

Systems Philosophy/Selectivism - Self-Regulating Systems

Laszlo, in systems philosophy, synthesizes a general theory of the world using known data from the empirical sciences. Adhering to the cybernetic age of thinking, he creates an all encompassing model of the relationships between the dynamic systems which exist at different levels of organization in nature. These dynamic systems are the reconceptualized thoughts of the specialized sciences, i.e. chemical, biological and ecological phenomena are currently construed as systems.[18] Human beings are situated within a set of systems which are unclearly interrelated to one another, i.e. how are ecological and political systems interrelated? Laszlo felt there was a need for a general theory of systems to explain the interrelatedness of different systems phenomena.

For Laszlo, a model of the structure of the cosmos in cybernetic terms possesses levels of dynamic systems on two different planes, which he terms the microhierarchy and the macrohierarchy. He further defines these hierarchies as terrestrial and astronomical. The macrohierarchy is comprised of all astronomical entities such as galaxies, star clusters,

stars, planets, atoms, molecules, molecular compounds, etc. The micro-hierarchy is comprised of all known terrestrial entities such as atoms, molecules, compounds, organisms, social and ecological systems. The macro-and microhierarchies intersect one another at the level of the atom.

General systems theory, is concerned primarily with the micro-hierarchy from the level of the atom to the level of a world system. The microhierarchy is structured such that the lowest level is comprised of atoms, which evolve into the next highest level of system which is molecules. The levels of organization of systems increases vertically and consecutively through crystals and colloids, cells, protoorganisms, organisms, socio and ecosytems and finally to world systems.[20]

Each level of system relates to the total hierarchy of cosmic structure in two ways: intrasystemically and intersystemically, or vertically and horizontally. In intrasystemic relations, one level of natural system incorporates systems above and below it in the cosmic hierarchy. In intersystemic relations each type of system reacts and interrelates with other systems in its environment, in the same level of the cosmic hierarchy.

In his theory of general systems Laszlo articulates some invariant properties which are common to each level of system in the micro/macro hierarchy.[21] The characteristics common to all natural systems are: (1) a systemic state property - which refers to the fact that all systems possess ordered wholeness, (2) a system cybernetics - which implies all systems consist of the adaptive techniques of self-stabilization and and self-organization, and (3) a system holon-property - which relates to

the tendency of each system to have intra and inter-systemic relationships, which increase the hierarchial structure of the cosmic whole.

It is the property of system cybernetics, with its adaptive techniques of self-stabilization and self-organization, which parallels the split dynamics of appetitive and aversive acts in selectivism. Both may be categorized as self-regulatory systems.

Recall that in selectivism the split dynamics of the drive operationalizes both the ends and the means of obtaining that end in an act of purposive behaviour. If a wrong means is chosen, the individual learns the error and does not repeat it under the same or similar circumstances. The incorrect means is discarded from the individual's cognitive makeup. Purposive behaviour is regulated by its own selective dynamic so that an individual or organism may adapt to its environment.

In systems philosophy a system maintains a steady state by a constant interplay of the forces acting in and on the system. Adaptation through stabilization may be seen when a system compensates for any changes in its environment by co-ordinating or regulating changes in the system's internal variables.[23] The other self-regulating dynamic involves adaptation through self-organization and evolution. If an organized whole or system encounters external forces which repeatedly act upon parts of its system, which are fixed or stationary parts normally used to stabilize the system, then the ordered whole must reorganize its parts to adjust or adapt to the fixed and constant external force, if it is to survive.[24] When acted upon by external forces, self-organization moves a system into

a progressively more organized system, while self-stabilization maintains the system in its pre-existing state of organization, depending on which dynamic is required for adaptation and survival.

Note how similar the self-regulating behaviour of the cybernetic system is to the social adjustment theory of selectivism in which an individual adapts to social environmental pressure by either altering his or her behaviour to conform to societies wishes when the pressure is great. When the pressure is lessened the individual alters his or her behaviour to seek personal needs and desires.

It is important to notice that the self-regulation which governs systems and individuals, responds to different dimmensions of external forces in systems philosophy and selectivism. In systems cybernetics, a dynamic of self-organization occurs in response to the duration of an external force, or in Laszlo's terms, an external force which is a fixed constant. In selectivism the parallel self-regulating dynamics of the various levels of selective systems respond to the amount or quantity of external social pressure applied to the system.

Pepper does not comment in his self-regulatory social adjustment theory about the duration of social pressure; nor does Laszlo comment in his dynamics of self-organization on the amount of pressure applied by external physical constants. This author feels that the dimensions of both duration and intensity comprise external environmental forces, and that cybernetic and selective systems will respond in the same fashion to either a quantitatively large external pressure or a constant and enduring pressure.

The omission of one or the other of these dimensions of external pressure by both Pepper and Laszlo may indicate that each scholar assumes the inclusion of the other dimension, or omits it unconsciously as a result of their personal perspective. The result however is that, according to Pepper and Laszlo, system cybernetics as a self-regulating system re-organizes itself to adapt to an external pressure of constant duration. This is different from the quantity or increase in social pressure stimulating an adaptive response from the dynamics of selectivism as a self-regulating system operating in the social adjustment theory.

In summary, both selectivism and systems philosophy are structurally similar in so far as they exhibit self-regulating dynamics. The third point of similarity which should be commented on briefly, is that both selectivism and systems philosophy are conceptualized as hierarchial structures.

Systems Philosophy/Selectivism - Hierarchial Structures

Systems philosophy, as was mentioned, is conceptualized by Laszlo in a hierarchial structure comprised of two major levels: the macro-hierarchy and the microhierarchy. Each level of system in the world structure increases in degree of organization from the lowest level of "energy condensations" to the "metagalaxy". Each level is comprised of the levels below it and the level above which incorporates it. The schematics in Figure VIII and Figure IX present the reader with a visual comparison of the hierarchies suggested by systems philosophy and selectivism.

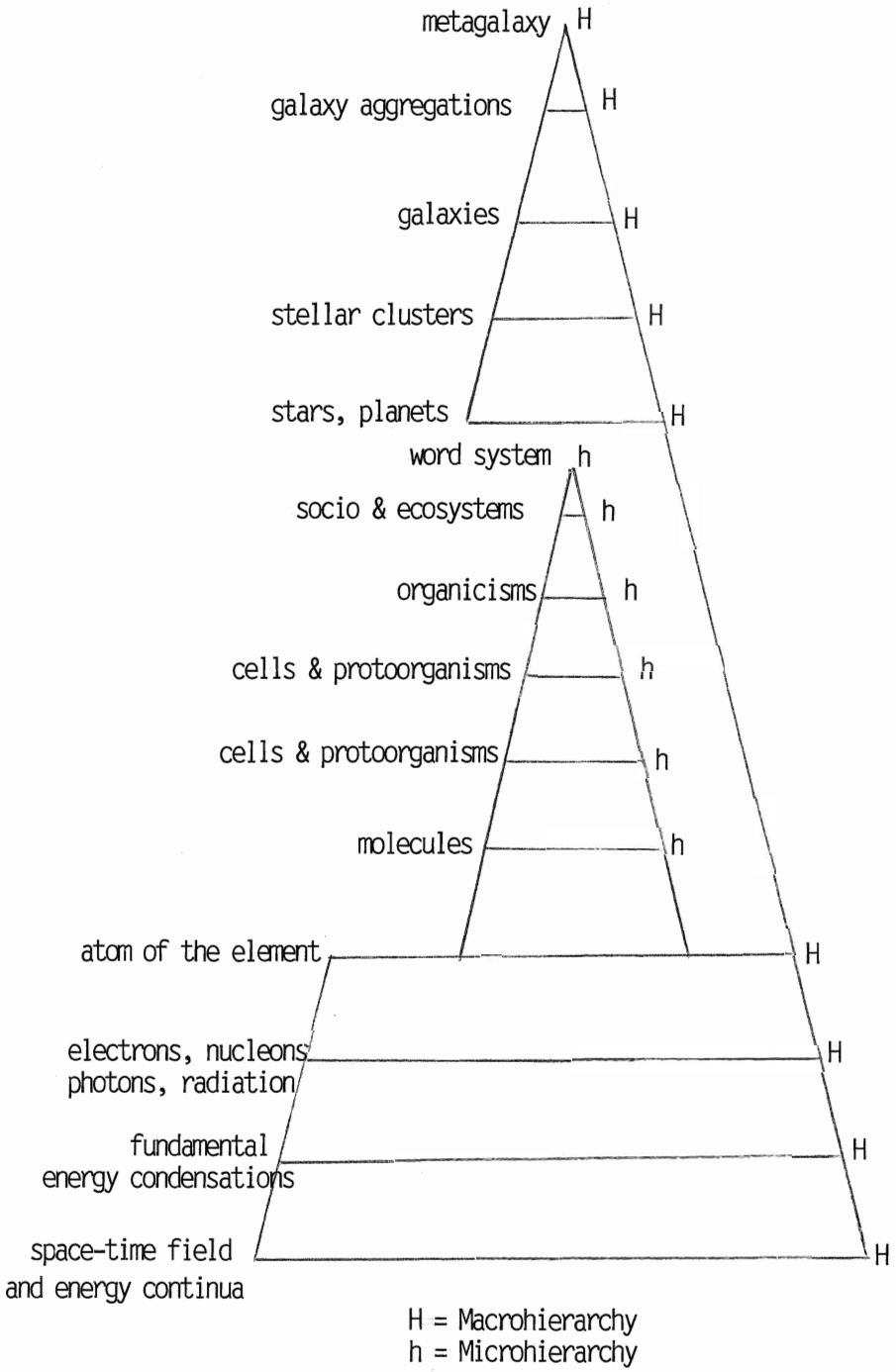

FIGURE VIII: PRINCIPAL LEVELS AND INTERRELATION OF THE MICRO- AND MACRO- HIERARCHIES IN SYSTEMS PHILOSOPHY[25]

Dynamics of Purposive Drives	Selective Systems	Dynamics of Evolutionary Process
Open Society	Cultural Pattern	Functional Society
Decentralization	Social Institution	Centralized
Freedom	Social Situation	Security
Initiative	Personality Structure	Discipline
Enjoyment	Personal Situation	Achievement
Pleasure	Purposive Structure	Success

FIGURE IX: PRINCIPAL LEVELS OF SELECTIVE SYSTEMS AND THE VALUES YIELDED UNDER PRESSURE FROM THE POLAR DYNAMICS OF PURPOSIVE DRIVES AND THE EVOLUTIONARY PROCESS[26]

While both systems philosophy and selectivism are conceptualized as being hierarchial structures by Laszlo and Pepper there are differences between the two as to the nature of relationships between the levels within each system. These are discussed later in this chapter. A fourth similarity between selectivism and systems philosophy is that each possesses a flavour of organicism, contextualism and mechanism, synthesized in the concept of self-regulation.

Systems Philosophy/Selectivism - Self-Regulatory Synthesis of Organicism Contextualism and Mechanism

Recall that mechanism may be thought of as a way of looking at the world from the perspective of how things cause, link with, influence or correlate with other things.[27] Laszlo and Pepper each indicate correlations between the levels of systems in the respective hierarchies of systems philosophy and selectivism. Let's look briefly at this.

Systems philosophy provides a mechanistic notion of intrasystemic and intersystemic dynamics, while selectivism emphasizes the lines of legislation between systems. In selectivism this is visible in the dynamics of the social adjustment theory. Thus the cause and effect nature of the interplay between systems adapting to their environments is mechanistic and exists in both systems philosophy and selectivism.

Contextualistic threads are visible in Pepper's social adjustment theory. Contextualism sees a world of constant change, and events are qualitatively felt and understood as the changing present. The circumstances of an event dictate the qualitative vividness of the event,

and these circumstances are constantly changing. The ethical decisions arising out of the dynamics of social situations are decisions based only on the circumstances and social pressures of a particular situation at a particular moment demanding the priority of certain values.

The changing present event also provides the parameters for the existence-directed, self-regulating behaviour of systems in the macro - microhierarchies, and the qualitative impact of change on the hierarchy as a whole may be intuited. Each adaptive and self-regulatory action taken by a system is unique to the nature of the intra and intersystemic relationships of that system at a particular specious moment. Thus contextualism is seen to be present and synthesized into the concepts of both selectivism and systems philosophy.

An organistic outlook implies a perspective based on the concept of integration. Organicism is most evident in both systems philosophy and selectivisms' social adjustment theory in each theory's respective treatment of "wholeness". In organicism, wholeness is measured by the degree to which facts are interrelated and dependent upon one another. If one fact is altered or removed every other fact in the system alters or the system is destroyed.[28] Clearly an organistic perspective has been synthesized into the structural dynamics of the self-regulatory mechanisms of both Laszlo's systems philosophy and Pepper's selectivism.

The social adjustment theory interprets a holistic world structure dependent on, and comprised of, eight selective systems ranging from the level of purposive behaviour to the level of cultural selection and

survival. Systems philosophy extends a picture of a cosmic whole of hierarchially integrated systems ranging from the level of fundamental energy condensations to the metagalaxy and comprising both the terrestrial and astronomical universes. In both conceptualizations changes in one level affect the nature of other levels and the hierarchial whole.

In brief summary, certain characteristics of organicism, contextualism and mechanism appear to this author to be synthesized into the self-regulating dynamic structures of both selectivism and systems philosophy. The fifth and final similarity between selectivism and systems philosophy which this thesis will address is concerned with the fact that both may be considered as interpretive world hypotheses, and as processes explaining the origins of events in the world.

Systems Philosophy/Selectivism - Interpretive World Hypotheses - Descriptors of the Origin of Life Events

Earlier in this chapter, selectivism was described as a world hypothesis capable of qualitatively/conceptually interpreting and describing the origins of knowledge about human systems in the world. Selectivism accomplishes this by explaining the derivation of human systems from the point of view of intelligent self-regulatory purposive behaviour. Systems philosophy also offers a world view or perspective of the structure of the universe based on the analogy of a dynamic self-regulating system. Thus, both selectivism and systems philosophy are world hypotheses. Pepper in a review of Laszlo's work describes systems philosophy as "a world hypothesis thoroughly empirical without any dependence on items of self evidence or idubitability...its paradigm or root metaphor is system or more specifically the dynamic self-regulating system."[29]

Systems philosophy, like selectivism, may also be considered a process for understanding the origin and derivation of life events, of things to be experienced. Selectivism explains the origin of experiences as the consequences of selective actions operating at different levels of purposive goal seeking behaviour. Systems philosophy explains the origins of life experiences as consequences of the adaptive behaviour of systems. The point here is merely that both selectivism and systems philosophy offer a similar explanatory process for investigating the origins of encountered experiences and for interpreting the nature of these experiences. Now that we have considered some similarities between selectivism and systems philosophy, let's turn to some important differences.

SYSTEMS PHILOSOPHY/SELECTIVISM - DIFFERENCES

Systems Philosophy and Selectivism - An Emphasis on Adapted States vs. An Emphasis on Selective Activity of Drives or Impulses

The emphasis in systems philosophy is one in which maximum value for a system, or for persons as systems, is optimum adaptation to the environment. Continued existence is the basic goal of all systems through adaptation in an appropriate state of organization.[30]

Selectivism also stresses adaptation or the decreasing of tensions between conflicting needs of different systems. This is visible in the dynamics of the social adjustment theory. However, while adaptation is the final goal to be attained, selectivism is a world hypothesis which emphasizes the concept of a drive or an impulse urging a system to begin self-regulatory behaviour. The drive and its selective activity are noticeably more emphasized in Pepper's concept of an adjusting adapting

system than cybernetic feedback is in Laszlo's concept of adaptation.

Selectivism offers an interpretation of adaptive behaviour which emphasizes the process of self-regulation through the dynamics of selective drives necessary to achieve an adapted state which is required for survival. Systems philosophy acknowledges a process of self-regulation through cybernetic feedback but the major emphasis of this philosophy is the provision and interpretation of a concept of adaptation.

In systems philosophy, adaptation as a precondition for existence of all living systems is the pivotal and salient point. The cybernetic self-regulatory process for achieving adaptation is recognized but is a less conspicuous characteristic of systems philosophy than the final adapted systemic state.

The difference is subtle. However, it appears to reflect a more process or method oriented approach in Pepper's thinking and a more product oriented approach in Laszlo's thinking. Both scholars believe in the primary and fundamental value of adaptation, but Pepper attends to the self-regulatory means for achieving adaptation to a greater extent than Laszlo. The pivotal interest of Laszlo is in the paramount nature of adaptation. This is evident in his book on systems philosophy in a chapter on "A New Age Ethos". Laszlo's concern is recognized by Pepper:

> ...the value norm of adaptation stands over man and his social systems and must be treated with respect - and even in Laszlo's favored term with "reverence".[31]

Pepper begins with a selective process which culminates in a theory

of social adjustment and ultimate adaptation. Laszlo begins with adaptation as the ultimate value and explains the dynamics of systems to attain it in cybernetic terms.

A further comparison of selectivism and systems philosophy yields a difference on the part of Pepper and Laszlo in the extent to which they respectively apply their world hypotheses to the range of the cosmic structure. Let's briefly examine how well these world hypotheses account for the total evidence about the nature of the world. Clearly selectivism emphasizes a self-regulatory process for the adaptation and survival of humans and human systems. Systems philosophy based on a cybernetic self-regulatory process is shown to be operable in any level existing in the cosmic structure from atoms to constellations, including human systems.

In choosing the root metaphor of purposive behaviour, Pepper limits and restricts the scope of selectivism to primarily interpreting the adaptive values of intelligent (primarily human) organisims. The application of purposive behaviour to atoms and molecules remains largely unaddressed by Pepper. Purposive behaviour is perhaps best thought of as a type of self-regulatory mechanism; but essentially it is the cybernetic theory of self-regulation which provides scope to systems philosophy to interpret both human and nonhuman systems.

The cybernetic theory of feedback which accounts for the maintenance of homeostasis and evolution of the organization of a system for the purpose of adaptation encompasses human purposive behaviour. Purposive behaviour is one method of self-regulatory behaviour yielding values of

satisfaction as well as survival for the human species. While selectivism provides a framework for ethical living for systems of people, Laszlo's philosophy, based on the root metaphor of systems - specifically self-regulating systems, also provides a framework for all natural systems (human and non-human) based on the prime value of adaptation which is necessary for the existence of all things. It is this author's contention that Laszlo fills in the gap between human and non-human systems. Essentially he accomplishes this by equating the self-regulating homeostatic behaviour of biological and physical systems with the purposive self-regulatory behaviour of human systems. He terms this conceptual bridge, systems behaviour, or general systems theory, based on a root metaphor of cybernetic self-regulation for the prime value of adaptation and continued existence.

The difference between Laszlo's and Pepper's perspectives is one of emphasis and not of insight. Both perceive a connection between self-regulatory behaviour and survival or adaptation. Pepper in his selectivism, however, humanizes self-regulatory behaviour to develop the concept of purposive behaviour. Perhaps this reflects Pepper's concern for creating a world hypothesis capable of providing a framework for harmonious living. Such humanism should be applauded, but is empirically impure. This author believes that Pepper accomplished a framework for a normative ethics at the risk of losing some of the scope and adequacy of selectivism. This was caused by choosing to emphasize human purposive behaviour instead of self-regulating behaviour.

Pepper was conscious of his bias towards humanism when he chose the root metaphor of purposive behaviour. He was intent on finding a method for interpreting human experience qualitatively and conceptually. It is questionable as to whether he was ever really seeking a qualitative/conceptual interpretation of the nature of the world or merely an interpretation of human experiences of the world. Evidence seems to confirm the latter. In defending his choice of the root metaphor of the purposive act early in Concept and Quality, Pepper dwells on the benefits of purposive behaviour as something which may be known consciously and felt qualitatively in human experience.[32] He implies that we may only know the world in terms of our human experiences of it. Consequently the meaning of these experiences may be known emotionally and intellectually.

Laszlo's metaphilosophy interprets all systems in the world rather than just specifically interpreting human systems. Laszlo, like Pepper, was very conscious of the reasons for choosing his root metaphor of general systems self-regulation. It was an attempt to offer an interpretation of the structure of the entire universe of systems, not merely the world of human systems. He states:

> ... The most consistent as well as most general paradigm available today to the inquiring, ordering mind is the systems paradigm... For within this framework the anthropormorphic bias of commonsense experience is neutralized: the systems philosophical paradigm takes man as one species of concrete and actual system, embedded in encompassing natural hierarchies of likewise concrete and actual physical, biological, and social systems.[33]

Thus, Laszlo's systems philosophy and Pepper's selectivism both provide insight into the importance of self-regulating behaviour as a requisite for survival and adaptation of systems. However, selectivism emphasizes

the self-regulatory dynamics of human purposive behaviour while systems philosophy emphasizes the self-regulatory behaviour of all natural systems (human and non-human).

Much more could be said regarding the nature of this difference between selectivism and systems philosophy, but it is beyond the scope of this thesis, and is a topic unto itself. The difference is acknowledged by this author to indicate that systems philosophy may have contributions to make to the scope of selectivism as a world hypothesis.

Summarizing briefly, a comparison of systems philosophy and selectivism yields the following major similarities. First they arise out of a similar concern in the minds of both Laszlo and Pepper. Second, each is structurally a self-regulating system. Third, each is based on a hierarchial concept. Fourth, each possesses a flavor of organicism, contextualism and mechanism synthesized in the concept of self-regulation. Fifth, each may be considered an interpretive world hypothesis, and, in addition both are processes explaining the origins of events in the world.

Selectivism and systems philosophy differ in the following ways. First, selectivism emphasizes the selective dynamic which yields an adapted organism, while systems philosophy emphasizes adaptation via cybernetic feedback. Selectivism is more process oriented while systems philosophy is more product oriented. Second, systems philosophy as it is presented by Laszlo is shown to be operational over a wider scope of the cosmic structure than selectivism. For example, as was mentioned earlier in this chapter, selectivism is assumed to be operating at atomic levels,

although its structural dynamics are considered to be more mechanistic than selective. Systems philosophy is demonstrated as inherent and operable at the atomic level as well as at the social systems level.

Thus far, this chapter has offered (1) a brief critique of the identity of selectivism, (2) commented on some strengths and weaknesses of selectivism and (3) made a comparison of selectivism and systems philosophy with respect to similarities and differences existing between the two. The final portion of this chapter comments on the contributions of systems philosophy to selectivism and on the nature of selectivism as a world hypothesis capable of providing a framework for educational excellence.

Some Contributions of Systems Philosophy to Selectivism

The foregoing comparative discussion of systems philosophy and selectivism was engaged in for the purpose of suggesting that systems philosophy has some contributions to make to the concept of selectivism. It is the contention of this thesis that systems philosophy contributes to selectivism in two ways. First, it provides a broader scope for the adequacy of selectivism as a world hypothesis by emphasizing the self-regulatory aspect of the root metaphor of purposive behaviour. Second, it offers structural corroboration of selectivism as a world hypothesis.

Through emphasizing the self-regulatory dynamics common to all natural systems versus the purposive self-regulatory behaviour of human systems, systems philosophy does not dispel selectivism, but rather expands the adequacy of the world hypothesis as an interpretive tool. Systems philosophy offers selectivism a way of beoming more applicable

to non-human realities by placing a less anthropomorphic emphasis on the root metaphor of self-regulatory adaptive behaviour.

The major similarity between systems philosophy and selectivism is the fact that both deal partially or entirely with some form of self-regulatory behaviour of systems, human and/or otherwise. Although this root metaphor is emphasized from differing perspectives, nevertheless it is an identical root metaphor in principle in both systems philosophy and selectivism.

The central point of both selectivism and systems philosophy is the concept of self-regulatory adaptive behaviour. Systems philosophy provides general evidence for this point. Selectivism provides evidence for this same central point, although largely from the realm of human behaviour. In this sense systems philosophy and selectivism are parallel world hypotheses, structurally corroborating the root metaphor of a dynamic self-regulating system which provides a synthetic interpretation of the structure of the world.

It is the contention of this author that both selectivism and systems philosophy are synthetic interpretations of the world. This is a major reason for the appeal of these world hypotheses and of synthetic meta-philosophy in general, as a framework for educational excellence. The greatest contribution of selectivism and systems philosophy to a concept of educational excellence is their synthetic nature. Pepper and Laszlo were each concerned with the conceptual relationships between knowledge fields and their respective hypotheses of selectivism and systems philosophy. Earlier in this chapter the qualitative/conceptual synthesis

of Pepper's selectivism was discussed as offering a harmonious interface between science and philosophy. Laszlo expresses similar anticipations about the contribution of his systems philosophy to the field of knowledge.

> ... there is ample opportunity within its conceptual framework for collaborative work by empirical scientists and philosophers of the most diverse interests. By sharing a common general framework, theories advanced by investigators on diverse fields can become mutually relevant and fertile. Thus the present communications gap in the disciplines may be overcome...[34]

This author feels that the validity of selectivism as a metaphilosophy providing a framework for eductional excellence will be largely determined by the appeal of its synthetic principles. This will be further explored in the next chapter.

SUMMARY

Chapter IV has been an attempt to explicate the following: (1) the identity of selectivism as a world hypothesis; (2) the strengths and weaknesses of selectivism in light of its identity; (3) the similarities and differences between the two independently developed but parallel world hypotheses of selectivism and systems philosophy; and (4) the contributions and structural corroboration that systems philosophy offers to the interpretive scope of selectivism. Figure X is a schematic summarizing and connecting the concepts discussed in this chapter. Chapter V addresses the contribution of selectivism to a theory of educational excellence and a concept of educating involving teaching, learning, curriculum and governance.

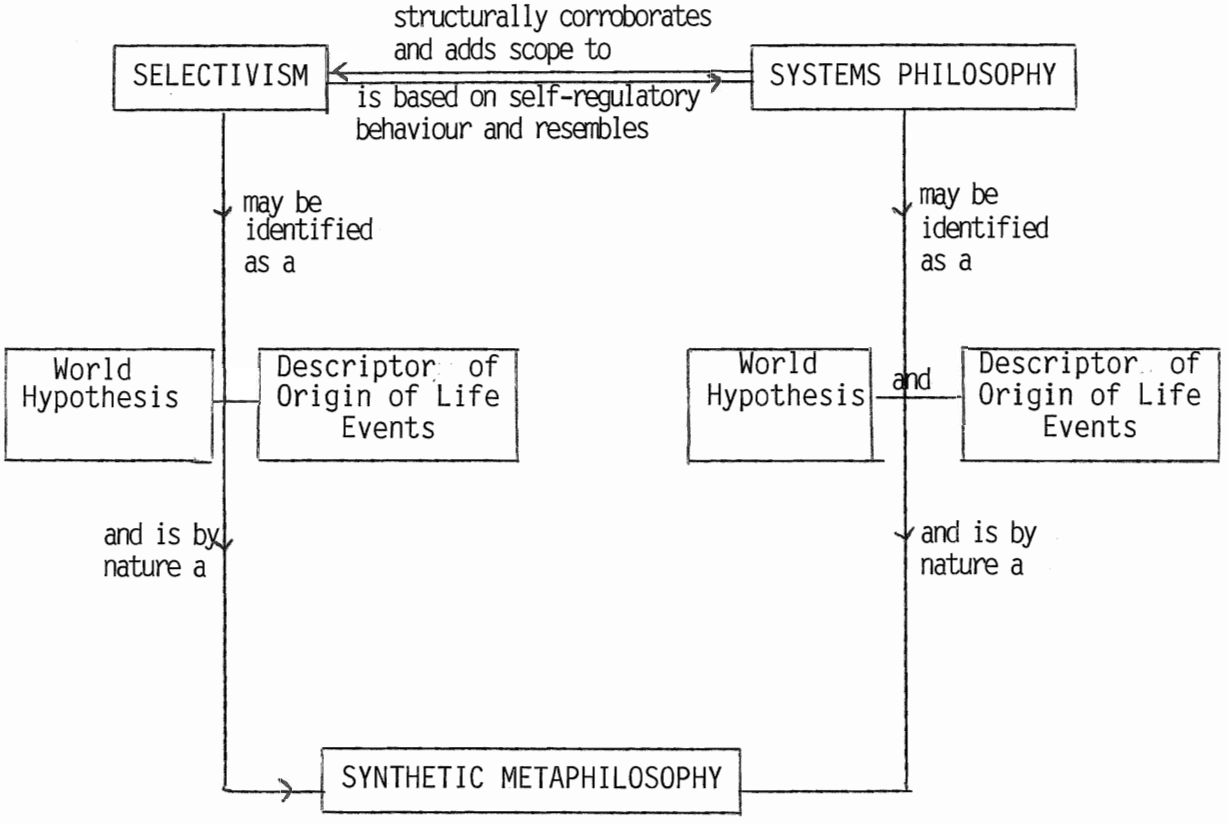

FIGURE X: CONCEPT MAP OF CHAPTER IV

FOOTNOTES

1. Stephen C. Pepper, Concept and Quality - A World Hypotheses, (LaSalle, Illinois: Open Court Publishing Co., 1967), p. 2.

2. Stephen C. Pepper, World Hypotheses: A Study in Evidence, (Berkeley and Los Angeles: University of California Press, 1961), p. 144-145.

3. Ibid., p. 148.

4. Stephen C. Pepper, Concept and Quality - A World Hypotheses, (LaSalle, Illinois: Open Court Publishing Co., 1967), p. 562.

5. Ibid., p. 562.

6. Joseph Horace Monast III, Evidence, Common Sense and Metaphysical Systems: The Philosophical Methodology of Stephen C. Pepper, Tulane University, Ph.D. dissertation, 1975, p. 416.

7. Bill J. Harrell, "The Social Basis of Root Metaphor: An Application to Apocalypse Now and the Heart of Darkness, "The Journal of Mind and Behaviour, 3, (Summer, 1982):221.

8. Stephen C. Pepper, World Hypotheses, (Berkeley and Los Angeles: University of California Press, 1961), p. 12.

9. Stephen C. Pepper, Concept and Quality - A World Hypotheses, (LaSalle Illinois: Open Court Publishing Co., 1967), p. 559.

10. Ibid., p. 559.

11. Ibid., p. 17.

12. Stephen C. Pepper, Ethics, (New York: Appleton-Century-Crofts Inc., 1960), p. 13.

13. Stephen C. Pepper, World Hypotheses, (Berkeley and Los Angeles: University of California Press, 1961), p. 113.

14. Stephen C. Pepper, Concept and Quality - A World Hypotheses, (LaSalle Illinois: Open Court Publishing Co., 1967), p. 555.

15. Stephen C. Pepper, "Systems Philosophy as a World Hypothesis", Philosophy and Phenomenological Research, 32, (1971-1972):551.

16. Ervin Laszlo, Introduction to Systems Philosophy, (New York: Harper & Row Publishers, 1972), p. vii.

17. Ibid., p. vii.

18. Ibid., p. 25.

19. Ibid., p. 28.

20. Ibid., p. 29.

21. Ibid., p. 35.

22. Ibid., pp. 3 -52.

23. Ibid., p. 40.

24. Ibid., p. 43.

25. Ibid., p. 29.

26. Stephen C. Pepper, Ethics, (New York: Appleton-Century-Crofts, Inc., 1960), p. 328.

27. D. A. Roberts, "The place of qualitative research in science education", Paper presented at the 5th Annual meeting of the National Association for Research in Science Teaching, Liberty, New York: April, 1981.

28. Arthur N. Geddis, "Teaching: A Study in Evidence", The Journal of Mind and Behaviour, 3, (Autumn, 1982):363.

29. Stephen C. Pepper, "Discussion - Systems Philosophy as a World Hypothesis", Philosophy and Phenomenological Research, 32, (1971-1972):348.

30. Ervin Laszlo, Introduction to Systems Philosophy, (New York: Harper & Row Publishers, 1972), p. 269.

31. Stephen C. Pepper, "Discussion - Systems Philosophy as a World Hypothesis," Philosophy and Phenomenological Research, 32, 9171-1972):553.

32. Stephen C. Pepper, Cocnept and Quality - A World Hypotheses, (LaSalle Illinois: Open Court Publishing Co., 1967), p. 17.

33. Ervin Laszlo, Introduction to Systems Philosophy, (New York: Harper & Row Publisher, 1972), p. 298.

34. Ibid., p. 298.

CHAPTER V

SELECTIVISM AS A BASIS FOR EDUCATIONAL EXCELLENCE

INTRODUCTION

A theory of educating, regardless of the propositions it may put forth, is always derived from philosophical tenets. In Western society these tenets are concerned primarily with the provision, maintenance and evolution of knowledge for use by future generations. Only that knowledge which is judged to be excellent ought to be incorporated into the curriculum of educational institutions for preservation and dissemination. A knowledge claim is judged to be excellent if it provides an individual with an insight or interpretation about the truth, the good and the bad of things in life, and the value of things which enrich the human experiences of life.

The purpose of preserving knowledge claims which meet the criteria of excellence, and of educating future generations about such knowledge, is to ensure cultural survival. Indeed, Pepper would argue that in the human race, cultural and biological survival are inseparable in the evolutionary process if the species is to survive. Such knowledge as has helped one generation to exist must be passed on to the next generation.

In addition to providing and maintaining knowledge claims which have been judged to be excellent, educating is also involved in the provision of evidence for these same knowledge claims. Such a provision of evidence enriches the meaning of a learning experience for an individual. This was discussed in Chapter II of this thesis.

Educators have historically argued and remained divided over the issue of what constitutes the best method for obtaining evidence about

knowledge claims, and for interpreting them. A duality exists, consequently, between qualitative and quantitative methods, between artists and the empirircal scientists. Knowledge fields have become highly specialized, not only in subject matter, but in the method used to interpret that subject matter.

Thus for example, the study of art is taught primarily from a qualitative perspective and meaning is largely qualitatively experienced by those persons interpreting artistic knowledge in the world. The physical sciences are taught from a quantitative perspective and the evidence for knowledge claims is obtained primarily via an interpretation of empirical facts. The schism has become so great over time that educators and curricula are polarized and uncompromising regarding qualitative/ quantitative knowledge. It appears to be an either/or situation. Knowledge may be interpreted qualitatively or quantitatively.

Thus far, this chapter has briefly presented the reader with some basic tenets of a theory of educating which seem to this author to be common in Western society. Reiterating, they are: (1) educating is involved with the provision, maintenance and evolution of knowledge in order that such knowledge be given to future generations, (2) the provision of knowledge for future generations is for the purpose of ensuring cultural and biological survival, (3) only that knowledge which has been judged to be excellent should be passed on, (4) knowledge claims, as well as the evidence for knowledge claims, should be taught in order to further enrich the meaning of an individual's learning experience, and (5) knowledge claims and evidence for the validity of knowledge claims are thought to be capable of interpretation by either qualitative or conceptual methods.

The application of these tenets is accomplished through an educative process in schools, which comprises four dynamically interacting elements: the teacher, the learner, the curriculum, and the administration governing the process. Recall that these are the commonplaces of the educative event denoted by Gowin whose work was cited in Chapter II of this thesis in relation to Pepper's world hypotheses. This current chapter is intended to express the contribution which this author feels that selectivism as a metaphilosophy can make to a theory of educating.

Selectivism will be shown to contribute to a theory of educating primarily as a result of its synthetic principles. The inherent qualitative/conceptual identity of selectivism provides an epistemology which contributes to a revisioning of what it is that constitutes educational excellence. Selectivism is an epistemology that provides us with knowledge about the nature of knowledge. Selectivism supports the concept that as human beings we can find intellectual and emotional meaning in our experiences of events in the world. The discussion which follows outlines the conceptual relationships between selectivism and a theory of educating and demonstrates the contributions of selectivism to educational excellence.

SELECTIVISM AS A BASIS FOR EDUCATIONAL EXCELLENCE

Reiterating briefly, educating is a process which accounts for the provision, maintenance and evolution of knowledge claims. Such knowledge claims are extended to individuals to expand and enrich their understanding of the world. Knowledge claims are considered excellent enough to extend to others if such claims possess intellectual and emotional meaning which in turn adds purpose to people's lives.

It is important to remember that knowledge claims are an individual's constructions of reality. When individuals share reality constructions with others, knowledge becomes a social event. Educating is the name applied to this process of sharing constructions of reality. This sharing represents a mutual human effort to enrich and give meaning to human existence. When shared meaning occurs between individuals an educative event has occurred. Educational excellence is achieved when shared meaning occurs between people and the meaning which is grasped in the event is enriching to their individual and/or collective lives.

In Western society, knowledge claims or constructions of reality are considered to be enriching and meaningful if they: (1) can be shown to be true, actual constructions of reality; (2) can enrich our qualitative/aesthetic experience of the world because they possess criteria of beauty and artistic merit; (3) can enrich our conceptions of ethical judgements needed for communal living; and (4) enrich our concepts of what is valuable and worthwhile in the world.

Thus, an educative event may be considered excellent if shared meaning between individuals occurs and the knowledge constructions which are shared possess acceptable criteria of enrichment and excellence. Judging knowledge claims to be excellent requires that individuals acquire evidence about the nature of the claim. Therefore educators must be providers of both knowledge claims and the evidence for the excellence or lack of excellence of knowledge claims.

Additionally the meaning of a knowledge claim can be further enriched for an individual if that person is able to speculate about, or obtain

information about, how the particular knowledge claim came into existence as an event in the world. Individuals should be able to acquire knowledge about the nature of knowledge. Also an individual should become aware of the way he or she tends to grasp the meanings of knowledge claims. In other words, individuals should be cognizant of how they learn.

Thus the pursuit of educational excellence involves; (1) providing students with knowledge claims which are meaningful and enriching because they possess accepted criteria of excellence; (2) providing students with evidence about the excellence of the knowledge claims that are taught to them; (3) assisting students to acquire knowledge about the nature of knowledge; and (4) assisting students to comprehend how they as individuals uniquely acquire meaning from the events they experience in the world.

Selectivism is an epistemology and a cognitive method which this author feels can provide a basis for the pursuit of educational excellence and enrich our understanding of educational theory. Selectivism can accomplish this by providing a conceptual framework on which to base educational excellence. Let's examine the ways in which selectivism provides this conceptual framework.

Selectivism and the Provision of Knowledge

Let us assume that knowledge is the outcome of persistent human attempts to lend meaning to human experience. As such the acquirement of meaningful knowledge adds a sense of purpose to our lives. The salient point to recognize is that we can only experience the world using human ways and means. The only experience of the world which we can have or share is the human experience of it. This may appear to be a rather obvious statement

but it is in this author's opinion the foundation upon which selectivism is grounded.

Selectivism offers us a method for perceiving knowledge events in the world as the consequences of purposive human behaviour. The criteria of excellence embedded in knowledge claims inherently arise out of the dynamics of human purposive activity. Selectivism implies that for human beings the world may best be known in terms of the human experiences of it. All meanings and criteria of excellence that exist in knowledge claims are actually changing human constructions of reality. Therefore the best way to understand knowledge is to view it as a shifting consequence of human living and purposive activity.

This concept of providing and perceiving knowledge has several implications for the achievement of excellence in an educative event. First, teachers must grasp the concept of knowledge claims as shifting or alterable human constructions of reality to be shared. Second, teachers can never cease in the pursuit of acquiring new or altered knowledge claims to share with a student if they accept the tenet that knowledge claims are dynamic events in the world arising out of human purposive activity. An excellent teacher understands and disseminates knowledge claims as alterable human constructions which approximate reality and provide meaning to individuals.

Teachers must be constant learners if they are to be adequate providers of knowledge claims. Expertise in any field of knowledge should be recognized as a temporary achievement. The colloquial expression for this is "learning is a lifelong process". Selectivism implies a dynamic nature

of knowledge which in turn implies that excellent teachers be lifelong learners.

Selectivism and the Provision of Evidence for Excellence in Knowledge Claims

Selectivism is a method for seeking evidence for the existence of excellence in knowledge claims. Essentially the criteria of excellence in knowledge claims are described in selectivism as the natural concomitants of the consequent actions of the selective dynamics of purposive behaviour. For example, according to selectivism the development of ethical judgements existing in human society arise from selective systems or natural norms adjusting to social pressures by sanctioning and selecting human choices and decisions.[1] Selectivism describes and accounts for the development and origins of that knowledge which is termed ethics.

Truth, beauty and value are also criteria of excellence in knowledge, and their derivation and development are explained by the process of selectivism. Selectivism offers a theory of truth based on a method of verification. It does this by describing the dynamic role of perception in cognition. An individual interacting with his or her environment possesses certain anticipations or apprehensions with respect to obtaining or avoiding a certain goal object.

Recall the earlier example in this thesis of the individual leaving a room in search of water to satisfy thirst. That individual has certain perceptions about the location of water which he or she proceeded to test out in the environment. To the extent that each anticipation brought the individual closer to water and finally to its attainment, the trials may be verified as true for that instance of interaction between indiviudal

and environment and may be somewhat applicable to other similar situations. Perceptual cognition in selectivism allows an individual to verify what things situated in the environment will assist him or her in the attainment or aversion of certain goals. Other criteria of excellence in knowledge include claims about what is beautiful in the world and what feelings should be valued in the world. Selectivism is also a method for explaining the derivation and development of both aesthetics and value theory. The term value is used here to connote whatever is conceived as "positive" or "negative". Aesthetic values are the values associated with selectivism which contribute most to the contextualistic characteristics of selectivism. This is because aesthetic values are qualitative by nature and must be "felt" to be known, while ethical values and cogntive values of truth or falsity are largely known by the process of human reasoning.

The source or derivation of aesthetic value in selective systems is found in the consummatory phases of goal seeking purposive behaviour. It is in the consummatory phase that something may be enjoyed for its own sake. Recall, in the discussion in Chapter III, the thirsty individual who after obtaining water and quenching his or her immediate thirst consumes the remaining water leisurely, savoring the taste and coolness of it. Pepper, commenting on positive aesthetic value in the consummatory act, states:

> ... in consummatory acts and gratuitous satisfactions the organism releases its tension in the longest and fullest appreciation of the quality of the experience...[2]

Positive aesthetic value is described as satisfaction in felt quality; in

selective systems the natural norm is to increase the satisfaction in felt quality to the maximum.[3] An experience is aesthetically good if it provides an intense feeling of satisfaction or pleasure for an extended period of time.

Evidence for the existence and derivation of the values of "good" or "bad" is also explained by the dynamics of selectivism. The social adjustment theory proposed by Pepper most clearly exemplifies this. A value of "good" may be applied to any act which results in a harmonious balance between drives or a release of tensions between different drives in interacting selective systems. The survival of a culture is deemed to be good. This survival may arise out of people and institutions conforming to a particular cultural pattern because of high social pressure. Thus conformity, if it ensures survival, is valued as "good". Values of "good" and "bad" arise in selectivism when a selective system adjusts or fails to adjust to the environment.

In the provision of evidence, selectivism offers a process or method for explaining the derivation and development of those criteria of knowledge which are deemed to be educationally excellent. Selectivism describes the origins of the truth of an experience, the aesthetic value of an experience, and the ethical or moral value of an experience as the natural concomitants of knowledge events arising out of the dynamics of selective systems. In a further contribution to a conceptual framework for enriching our understanding of educational excellence, selectivism also offers us knowledge about the nature of knowledge. Let's examine this contribution in the following paragraphs.

Selectivism and the Nature of Knowledge

Recall that earlier in this thesis, knowledge and knowledge claims were found to enrich meaning for an individual intellectually and emotionally. In other words a person may acquire meaning by both thinking and feeling. Selectivism proposes a definition of the nature of knowledge as a synthetic and inherently complementary duality of what Pepper terms the qualitative and the conceptual modes of cognition. By this he means that knowledge possesses claims which may be felt to be known and meaningful or may be thought or reasoned about in order to be meaningful. For example an art object may elicit a reasoned analysis from an observer as to the artistic merit of the object, but additionally an observer has qualitative feelings which give meaning to his or her experience of the art object, i.e. the individual may feel pleasure or displeasure on viewing the art. Thus, meaningful knowledge of the art object is obtained by the processes of both thinking and feeling.

Selectivism asserts that events in the world are most comprehensively interpreted from both the qualitative and conceptual modes of cognition. In this assertion, selectivism provides knowledge about the nature of knowledge claims and about the ways to best acquire full meaning from these claims. Pepper feels that both the qualitative and conceptual modes of cognition must be developed if an adequate comprehension of the world is to be attained; an education which does not equally develop these two modes is unbalanced.[4]

If the tenets of selectivism are accepted and knowledge claims are perceived to be by nature synthetic complements of intellectual and emotional meanings then our current educational practices must be revised. Knowledge

claims are currently taught dispersively in isolated disciplines and educators imbue the claims and disciplines with meanings which are obtained primarily by applying only one mode of cognition. For example, students are taught to extract qualitative feelings from their experiences of art. Conversely students are taught to experience knowledge which is classified as scientific in an empirical, analytical way. Selectivism overcomes the dualism between reason and feeling between the sciences and the arts, by asserting that meaningful knowledge can be both thought about and emotionally felt.

Educators engrossed in only one of the two modes of cognition will be less disparaging of one another and each other's teaching methods if they come to believe what selectivism proposes - that knowledge is inherently both qualitative and conceptual and that any item of knowledge may be interpreted from both perspectives. If educators accept this tenet offered by selectivism and if in their capacity as educators they perceive themselves as the refiners and disseminators of knowledge, then the current conflicts and unequal status which exist between the arts and the sciences should be eradicated. It is in this context of promoting harmony between the cognitive disciplines by presenting knowledge about the structure of knowledge that selectivism, as a metaphilosophy, makes its major contributions to the educational sphere and the pursuit of excellence. Educational excellence, under the auspices of selectivism, judges knowledge to be excellent if it provides an individual with an interpretation of the truth, the aesthetically and the ethically valuable in life; but additionally such excellence must be known both qualitatively and conceptually for an individual to experience the fullest comprehension and enrichment of

meaning possible. On this point, Pepper states ... "concept and quality are essential to each other in the understanding of our world."[5]

The qualitative/conceptual nature of knowledge proposed by selectivism implies that a theory of educating should seek to cultivate an understanding and appreciation of life from both of these complementary perspectives. Selectivism makes an appeal to education to contribute to the development of an individual's comprehension of the world by encouraging and teaching the person to employ both qualitative and conceptual modes of cognition. On the intrinsic and complementary qualitative/conceptual nature of knowledge Pepper offers an insightful rebuttal to what he perceives as an overemphasis on the natural sciences in the educational system:

> ...this same pressure almost stagnated history. Only scientific history seemed respectable. Yet history without interpretation of the felt qualities of human interaction and motivation is like a biography without a personality.[6]

The synthetic principle of selectivism implies that both art and science in education contribute equally important knowledge and values to society and a theory of education should emphasize their mutual relevance. Pepper comments:

> ... and both contribute enormously to human knowledge: that of art to the qualitative living experience of men, that of science to the conceptual control of man's environment. Human wisdom requires that they should never be widely separated from each other. Each needs the other for a balanced view of the world, and for balanced judgement in human policy and action...[7]

Gowin, in his theory of educating, asserts the same concern as Pepper for changing the meaning of human experiences by integrating the conceptual

and qualitative aspects of experience through purposive behaviour. This can be seen in the following comments:

> ... But the best sense of educating should sustain a flourishing integration of thinking, feeling and acting... These three elements need each other. Thinking needs feeling in order to operate; thought by itself moves nothing; feeling shorn of thinking is without direction. Acting in an intentional way validates both thinking and feeling... Acting tests ideas: it arouses and expresses feeling. Thinking leads to acting because thinking helps us to see and comprehend alternatives.[8]

Gowins concept of testing ideas is similar to the anticipations and apprehensions or trial acts of purposive behaviour as outlined in selectivism. The validation of thinking and feeling by intentional acting is a reiteration of the concept of the self-regulating mechanism of selectivism assisting an individual to adapt to his or her environment with the maximum comprehension possible. Both selectivism and Gowin's theory of educating assert that human experiences of the world including educational experiences involve a person in thinking, feeling and acting.

Summarizing briefly, this author feels that selectivism offers individuals knowledge about the nature of knowledge as synthetic events which evoke both human thinking and feeling. In selectivism knowledge claims are conceived of and arise out of purposive human activity. In the pursuit of educational excellence, the relevancy of both thinking and feeling should be taught by teachers, grasped by learners, inherent in curriculum materials and be exemplified in the policies of those responsible for the governance of educative events. Selectivism also contributes to a conceptual framework for understanding educational excellence by explicating and providing knowledge about the way people acquire meaning.

Selectivism as a Method for Acquiring Meaning

Attempts to seek meaning in human experiences of the world involves individuals in constructing reality in terms of their own world view. The act of interpreting the world from some common sense analogy is purposive human behaviour. The goal of this behaviour is to attain the most meaning of an event possible for a particular individual. Persons who become aware of the way in which they personally perceive the world gain an insight into how they as individuals learn and construct knowledge. Additionally, individuals can gain insight into how others construct knowledge and find meaning in events.

This is vital information for a teacher. If a teacher is aware of a student's perceptual framework then the teacher has an opportunity to present new knowledge to the student in terms of that student's world view. Knowledge claims are learned more readily and are more meaningful the more consonant they are to a student's actual world view. It is also important in learning to know the variety of adequate ways that people use to construct meaning, because one then gains insight into other ways of perceiving and organizing data. Thus, one's ability to interpret evidence in the world becomes expanded.

Selectivism in this author's opinion explains the derivation and use of interpretive analogies as purposive behaviour that humans engage in to lend meaning to human experiences of the world. Selectivism is a metahypothesis that describes world hypotheses as different methods that humans use to construct meaning and give purpose to their lives. In this capacity selectivism contributes to educational excellence by providing insight into the nature of

the human construction of meaning. This insight is vital for teachers who need to accommodate student's perceptual frameworks if learning is to occur. It is equally vital for students to gain insight into other ways of learning and making life events meaningful.

SUMMARY

In summary, this author feels that selectivism expands and enriches the basic tenets of Western society that relate to a theory of educating. It enriches the concept of the provision, maintenance and evolution of knowledge for use by future generations by providing a basis for educational excellence. Selectivism as a basis for eductional excellence offers two major insights for our consideration. First, selectivism provides a theory about the nature and structure of knowledge. In this dual capacity selectivism can (1) assist teachers and administrators in the provision of knowledge claims which are meaningful and enriching; (2) can assist educators in the provision of evidence about the meaningfulness and excellence of knowledge claims; (3) can assist students and teachers to acquire knowledge about the qualitative/conceptual nature of knowledge; (4) can provide a basis for revisioning excellent curriculum materials as knowledge which must be acquired by thinking, feeling and acting on their meaning; and (5) can assist individuals to broaden their capacities to acquire meaning from life events, by demonstrating the variety of other ways in which they may construct knowledge.

Furthermore selectivism offers a method for healing the schism between the sciences and the arts; between those educators who feel that meaning is best grasped by reasoning and those who feel that meaning is best grasped by feeling. Humans are intellectual and emotional beings and take meaning from the world by thinking, feeling and acting. Selectivism asserts that meaningful knowledge can only be gained via the human experiences of the world. Thus knowledge is best gained through both thinking and feeling because these are inherent components of the human psyche. Selectivism asserts that art and science are mutually relevant; that educating to be excellent must consider the lived experience of individuals to be laden with both intellectual and felt qualities.

Thus, for education to be considered excellent it should attempt to develop an individual's emotional and intellectual capacities to the fullest. Selectivism presents educational theory with knowledge about the nature of human knowledge that demands that the "qualitatively felt" and "intellectual" experiences of life not be separated from one another in the educative process. To do so is to deny aspects of meaning for an individual. Figure XI is a schematic representing the concepts discussed in this chapter in discovering the contributions of selectivism as a basis for educational excellence.

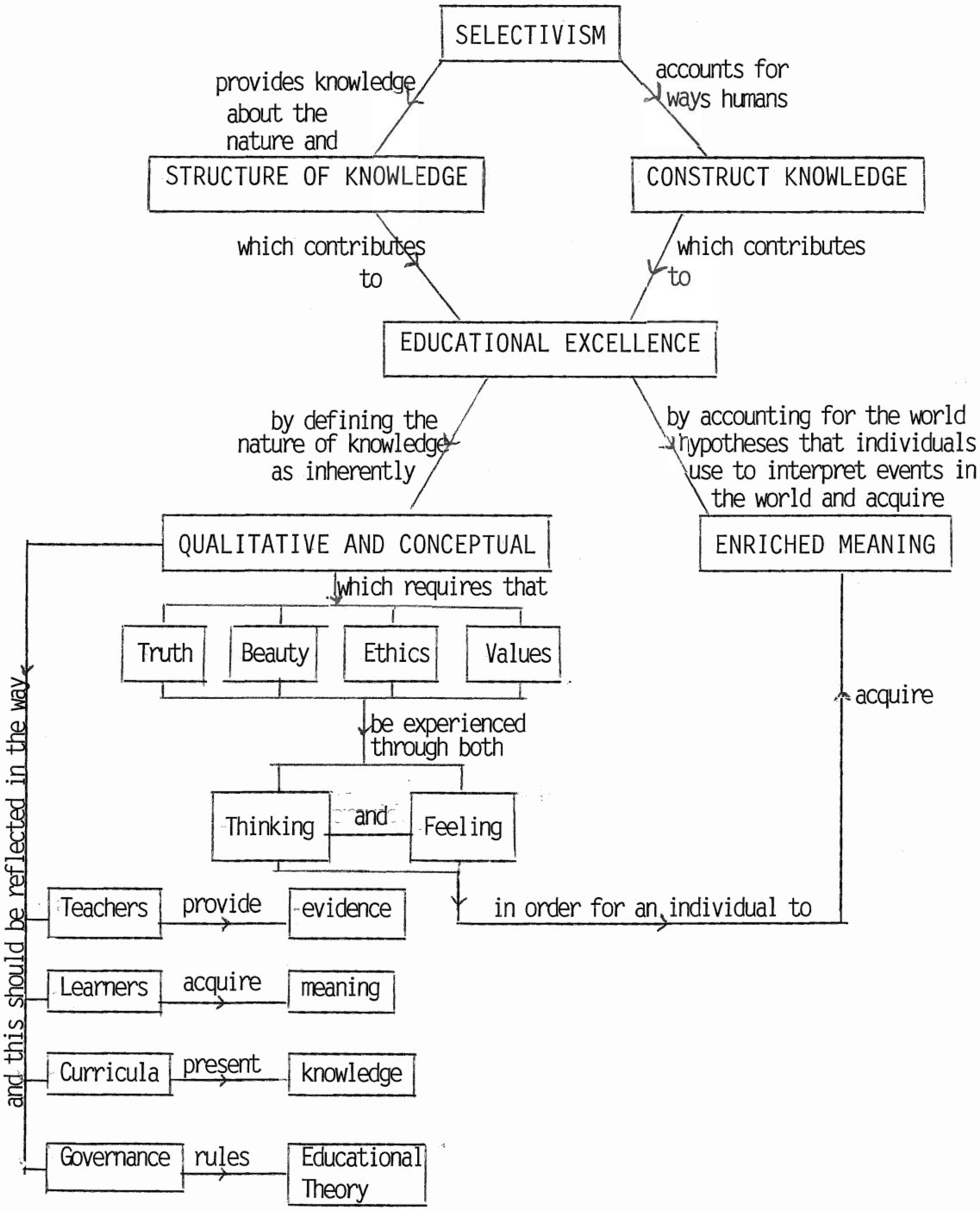

FIGURE XI: CONCEPT MAP OF SELECTIVISM AS A BASIS FOR EDUCATIONAL EXCELLENCE

FOOTNOTES

1. Stephen C. Pepper, Ethics, (New York: Appleton-Century-Crofts Inc., 1960), p. 355.

2. Stephen C. Pepper, Concept and Quality, (LaSalle Illinois: Open Court Publishing Co., 1967), p. 565.

3. Ibid., p. 566.

4. Ibid., p. 562.

5. Ibid., p. 564.

6. Ibid., p. 563.

7. Ibid., p. 619.

8. D. Bob Gowin, Educating, (Ithaca and London: Cornell University Press, 1981), p. 49.

CHAPTER VI

SELECTIVISM AND CULTURAL SURVIVAL

INTRODUCTION

In the creation and refinement of meaning, an individual today is assisted by a richness and expansiveness of knowledge which is almost beyond imagination. Unfortunately this vast array of knowledge is still primarily experienced in a fragmentary way. Largely this is because most knowledge is specialized or set apart in autonomous disciplines. Such isolating of knowledge into separate cognitive disciplines was a sufficent means of ensuring an adequate education for individuals living in an age of specialization. In the age of specialization the observed universe was seen from the lenses of particular disciplines each describing the world from isolated vantage points. Currently the amount of knowledge available is so vast that for a more adequate comprehension of the world the specialist approach needs the complement of a generalist's approach.

From the generalist's point of view, meaning is enriched by experiencing knowledge not in a fragmentary fashion, by adhering to the method of one cognitive discipline, but rather by adopting a synthetic viewpoint that stresses the innate interrelatedness of our knowledge of the world. Specialized knowledge disseminated through educational systems is not providing a coherent view of the world. This is a serious threat to the survival of cultures which are already technologically immersed in more global outlooks. Current technological developments are emphasizing information processing on a vast scale. In doing so technology is connecting and collectively interrelating knowledge claims from many different fields. However in this author's opinion a global ethic is required to match the technologies being employed. People are still

thinking in specialized ways and are out of touch or overwhelmed by the shift to a global world view. Essentially the current organizational framework of knowledge on which the educational system in Western society is based is outmoded.

The drive towards a generalist global reality of civilization will soon demand a new perspective of knowledge. Indeed it is this author's opinion that such a demand has existed for some time. If the survival of the human species is truly dependent on the development of a global society, (and this appears to be the current reality) then future generations require a synthetic comprehensive system of knowledge. Such a synthetic method must reorganize and adapt the current knowledge structure.

SELECTIVISM - A CONCEPTUAL FRAMEWORK FOR EDUCATORS

Providing a conceptual basis for adapting the current knowledge structure is, in this author's opinion, the primary contribution of the metaphilosophy of selectivism to a theory of educating. This thesis has shown that selectivism accomplishes this by first, providing a method of interpreting knowledge which is applicable to a wide range of phenomena encountered in our experiencing of the world. Selectivism shares the identity of an interpretive hypothesis with the other world hypotheses of formism, mechanism, contextualism, and organicism. Second, selectivism provides an epistemology for use by educators. This espistemology reflects the intrinsic synthetic nature of knowledge and the ability of selectivism to interpret the world from a synthetic vantage point.

It is an epistemology which reorganizes the framework of knowledge. Theories of truth, ethical, moral and aesthetic values; all criteria of

educational excellence possess a synthetic qualitative/conceptual identity in selectivism. According to selectivism the evidence for the excellence of knowledge claims is synthetic by nature and should be pursued and sought using a synthetic method. Criteria of excellence should be emotionally and intellectually experienced.

The failure of the current framework of knowledge to provide a global or synthetic perspective for making meaning out of the world is emphasized by Peter Drucker in The Age of Discontinuity.

> ... The most probable assumption is that every single one of the old demarcations, disciplines, and faculties is going to become obsolete and a barrier to learning as well as to understanding. The fact that we are shifing from a Cartesian view of the universe, in which the accent has been on parts and elements, to a configuration view, with the emphasis on wholes and patterns, challenges every single dividing line between areas of study and knowledge...[1]

Selectivism challenges the divisions between the cognitive disciplines of the sciences and the arts. It appeals to a framework of knowledge which harmonizes these disciplines in a concept which defines knowledge as something which cannot fully be understood unless it is experienced through felt qualities and reasoning activities.

Education which fails to provide evidence for all knowledge claims or fails to teach knowledge claims in terms of both of these experiential modes is negligent according to the conceptual framework provided by selectivism. In a wholistic or global world a framework of knowledge must have scope, be able to synthesize knowledge claims, define their nature and, additionally, describe the nature and interrelatedness of all knowledge. Knowledge must move from its emphasis on specialization to a synthetic emphasis to be useful to generations living in a global age. In a wholistic environment an

individual's meaning of the world will not be enriched by experiencing specalized areas of knowledge unless these areas are presented in a synthetic fashion which demonstrates their interrelatedness and interconnectedness.

The current revolution in information processing is demonstrative of technological attempts to adapt to the vast array of knowledge available from a global perspective. Such technology will prove futile,however, unless a global, wholistic ethic or perspective is introduced into educational theory. Curricula cannot continue to present and interpret knowledge claims in only one experiential mode, for this denies the full nature of knowledge. i.e. both science and art should be taught in a fashion which expresses the emotional and intellectual aspects of each. In addition curricula must begin to provide an integrated approach to knowledge and the lines which segregate disciplines into isolated cognitive specialities must dissolve. To an extent the biological sciences have attempted this in their presentation of knowledge about ecological systems and communities. The sociological sciences have also contributed to a sense of wholistic, communal knowledge in presenting claims about the nature of man and society. However, in these instances the task has only just begun.

A greater number of educators must adopt a generalist ethic in respect to their philosophical understanding of knowledge and the functions of knowledge and begin to apply it to the design of curricula if the students in their care are to become cognizant of a global perspective. The challenge at this time is to adapt the current foundations of knowledge to a wholistic global reality.

Thus far, this chapter has discussed selectivism as a metaphilosophy which this author believes provides a much needed and restructured conceptual framework of knowledge. Such a framework provides educators with a theory about the structure of knowledge which stresses the synthetic nature of conceptualizing experiences. Recall from the discussion in Chapter IV that selectivism aslo synthesizes other world perspectives into its structure - the characteristics of organicism, contextualism and mechanism are clearly visible - and in so doing offers additional scope for interpreting the knowledge of the world.

In providing a new conceptual basis for adapting the current foundations of knowledge, selectivism bridges the distances between the specialized cognitive disciplines. In so doing selectivism offers a practical method for the implementation of its ideology. This method involves the encouragement of mutuality between individuals.

In selectivism the concept of mutuality is not a mere "brotherhood statement", but a functional requisite for maintaining a balanced culture in which maximum satisfaction for the individual and for society is sought. Such mutuality is sought in the governance of the social adjustment theory in Pepper's metaphilosophy and will need to be sought in the revisioning of educational theory and practise. Understanding the concept of mutuality between people is the key to acceptance of a new framework of knowledge for cultural survival and to the acceptance of a global and panoramic world view.

Some might comment that to consider concepts of mutuality, of holistic world views, and a new epistemology in the attainment of a global perspective is merely dabbling in utopian ideals. This author feels, however, that the time has long passed when these concepts should be

considered utopian ideals. The evidence of destruction caused by a lack of a global perspective is too great to deny the reality and need of what Laszlo eloquently terms a "new age ethos".[2] Empirical experience of the current imbalance between the human race and the natural environment should be enough to convince the most callous cynic of the need for a new perspective - a perspective based on synthetic, wholistic foundations. The connection between the synthetic appeal of the principles of the metaphilosophy of selectivism and the need for new foundations of knowledge to encourage a sense of mutuality and the interdependence of all living things becomes self-evident. Selectivism appears to be a metaphilosophy "made to measure" for meeting these needs.

There are also those who would label an attempt to change the conceptual foundations of knowledge as anarchy. This would be true if the result is permanent disorder or confusion; however, if the result is a much need reform, such an attempt becomes a matter of mobilizing adaptation and radical change. Changing the conceptual foundations of knowledge involves uncovering and identifying existing patterns of mutuality between adherents of disparate knowledge fields and reinforcing these patterns as building blocks for the future.

To the extent that our knowledge of ethical values arises out of the dynamics of selectivism it is not surprising that the concept of mutuality is so evident in selectivisms' theory of social adjustment. The connection between mutuality and ethics in bringing about change, has been addressed by previous philosophers. Peter Kropotkin a Russian philosopher who lived during the time of the Bolshevik Revolution, professed that ethics be founded on a principle of mutual aid which he felt was self-evident in evolutionary theory.[3]

In Kropotkin's writing, there is startling resemblance to both Pepper's and Laszlo's appeal for harmony, interrelatedness, and mutual dependancy if a balanced society so necessary for cultural survival is to be achieved. Kropotkin comments:

> ...That mutual aid is the real foundation of our ethical conceptions seems evident enough. But whatever the opinions as to the first origin of the mutual aid feeling or instinct may be - whether a biological or super-natural cause is ascribed to it - we must trace its existence as far back as to the lowest stages of animal life where we can follow its uninterrupted evolution, in opposition to a number of contrary agencies, through all degrees of human development, up to the present times.[4]

Perhaps it is selectivism and systems philosophy which describe the origins of the concept of mutual aid Kropotkin advocated. Kropotkin does not profess an ideology which results in a perfect harmonious society but rather one in which the ethics derived from mutual aid bring about the maximum balance achievable.

The social adjustment theory of selectivism and the epistemology contained within this metaphilosophy also appear idealistic in theme. Perhaps it was for this reason that Pepper devoted so much time to empirically developing the root metaphor of selectivism based on purposive behaviour. For the root metaphor of purposive behaviour is based on the realities of means and ends; it is an ideal based on empirical evidence. Perhaps this was Pepper's way of making a metaphilosophy so aligned with ethics, aesthetics, and value theory, palatable to the empirical scientists. Perhaps the quintessential element of selectivism as it relates to knowledge and educational excellence is its portrayal of the union of idealism and empiricism. Idealism is conceiving laden

with qualitatively felt values. Empiricism is conceiving based on logic and reason. In selectivism these two methods of conceptualizing are portrayed as necessary complements of human constructions of meaning.

Thus far, this chapter has summarily commented on the need for the conceptual relations which exist between metaphilosophy, particularly selectivism and educating. Speculation must also be invited on additional possibilities arising out of a new framework of knowledge based on the metaphilosophy of selectivism. Throughout this thesis areas were opened up for further exploration and numerous telling questions were derived. Let us examine some of those now.

RECOMMENDATIONS FOR FUTURE INQUIRIES

Several general areas arose in this thesis which in this author's opinion require more extensive consideration. Of prime importance are the areas concerned with: (1) incorporating and identifying world hypotheses in curriculum materials to assist students in discovering new ways to learn, (2) identifying selectivism as a fifth adequate world hypothesis or a synthetic metaphypothesis which is the analogy or root metaphor of Pepper's root metaphor theory, and (3) further comparing the concepts and functions of systems philosophy and selectivism to discover if one more adequately accounts for the evidence of the nature of the world than the other.

World Hypotheses and Curricula

Further explorations are requried to provide practical methods by which the world perspectives of formism, mechanism, contextualism, organicism and selectivism can be incorporated into curricula which are structured

for use in educating in order to enrich individuals' comprehension of the world. There is much more to be accomplished in identifying meta-philosophy in the current curricula and in heightening students and teachers awareness of the nature of such knowledge. The benefits and need for doing this should be examined further.

A practical pedagogy must be developed which exemplifies the qualitative/conceptual reality of knowledge claims and provides evidence for this reality in accepted criteria of excellence. Further research is required to locate a method to ensure a smooth transition from curricula which contain specialized knowledge claims to curricula which present the interconnectedness of knowledge claims as they relate to other knowledge claims. How will the content of curricula move from being autonomous specialized knowledge to being synthetic knowledge applicable to a wide range of phenomena? The perspectives of teachers, curriculum designers, administrators and students must undergo a radical transition. Such reform needs mobilization. A plan of action is required to assist in the transition. A vast amount of research and effort should be directed to this end.

The Nature and Identity of Selectivism

It is the contention of this thesis that selectivism is both an interpretive world hypothesis which seeks to provide evidence for knowledge claims and an epistemology which describes the nature and structure of knowledge as both qualitative and conceptual. In addition it is a process describing the origins of knowledge and of experiences and events in the world as the consequent actions of purposive behaviour. A question

needing further exploration is whether selectivism is in reality a hypothesis for describing the origins of Pepper's root metaphor theory? This author feels that selectivism is the root metaphor of the root metaphor theory. Selectivism perceives the acts of interpreting the world from common sense analogies as purposive human behaviour. World hypotheses in selectivistic terms have their origins in human purposive attempts to create meaning.

Also, additional effort should be directed to exemplifying in greater detail both the synthetic nature of selectivism and its synthetic principles. The applications of such a synthetic world view to areas outside of the field of education should be considered. Finally, the concept of mutuality in the social adjustment theory needs greater clarification and exploration as it relates to ethical principles and an adjustable balanced society.

Systems Philosophy and Selectivism

Of paramount importance in comparing systems philosophy and selectivism is the fact that systems philosophy expands the adequacy of selectivism as a world hypothesis. It accomplishes this by placing a less anthropomorphic emphasis on the root metaphor of self-regulatory adaptive behaviour. Further questions need to be raised asking why Pepper chose to concentrate on human systems as opposed to general systems? The adequacy of the scope of selectivism as a world hypothesis must be examined further because of this restriction. An analysis of Pepper's claim that there exists a qualitative as well as conceptual nature in all things will provide the needed answer. It must be shown how all entities - human and non human - possess an intrinsic qualitative/conceptual

nature. Only then will selectivism truly be a world hypothesis of adequate scope.

A greater exploration of the organistic characteristics of both selectivism and systems philosophy should also be initiated because both philosophies appear to be functionally dependant on organistic concepts. Selectivism proposes a theory of social adjustment which is functionally dependant on a concept of interrelatedness between individuals and groups of individuals - essentially on a concept of mutuality. Systems philosophy is dependant on the functional interrelatedness between inter and intrasystemic levels in the macro-microhierarchies. The key concept shared between the two is the interrelatedness of elements in the respective systems; this is highly indicative of a strong organistic influence. Are selectivism and systems philosophy really organic theories derived to meet the demands of a dawning wholistic and global perspective of the structure of the world? A greater conceptual analysis of these metaphilosophies should provide the answer.

OVERALL SUMMARY AND CONCLUSIONS

The general contention and conclusion of this thesis has been that the metaphilosophy of selectivism can provide a basis for educational excellence and that it can do so by contributing a new conception about the structure and nature of knowledge to the framework of educational theory. This conclusion was generated by exploring the relationships between meaning, metaphilosophy and educational excellence. The work of Stephen C. Pepper and D. Bob Gowin provided the conceptual groundwork

for investigation the fields of metaphilosophy and education respectively. The world hypotheses of formism, mechanism, contextualism and organicism were explicated and their potential contributions to teaching, learning, curriculum and governance were explored.

Most particularly, however, this thesis has examined and explicated the metaphilosophy known as selectivism and identified ways in which its synthetic principles revise our knowledge of educational excellence and provide an epistemology for use by concerned educators. Finally this thesis has presented a plea that educators be concerned with adopting a new ethic regarding the synthetic nature of knowledge.

Knowledge constructions designed for educational purposes and based on the tenets of selectivism, will reflect educators' acknowledgement of the synthetic, holistic nature of the universe. The Cartesian view of reality is shifting to a holistic world view. If future generations are to continue to survive and find purpose and meaning in life they must continue to be educated and enriched. Educators must give future generations adequate and satisfying modes of beholding and communicating shifting views of reality if human culture is to survive. It is in this capacity that selectivism contributes to a synthetic, world view and interpretation of reality. Selectivism is a current aid for educators concerned with cultural survival in human evolution.

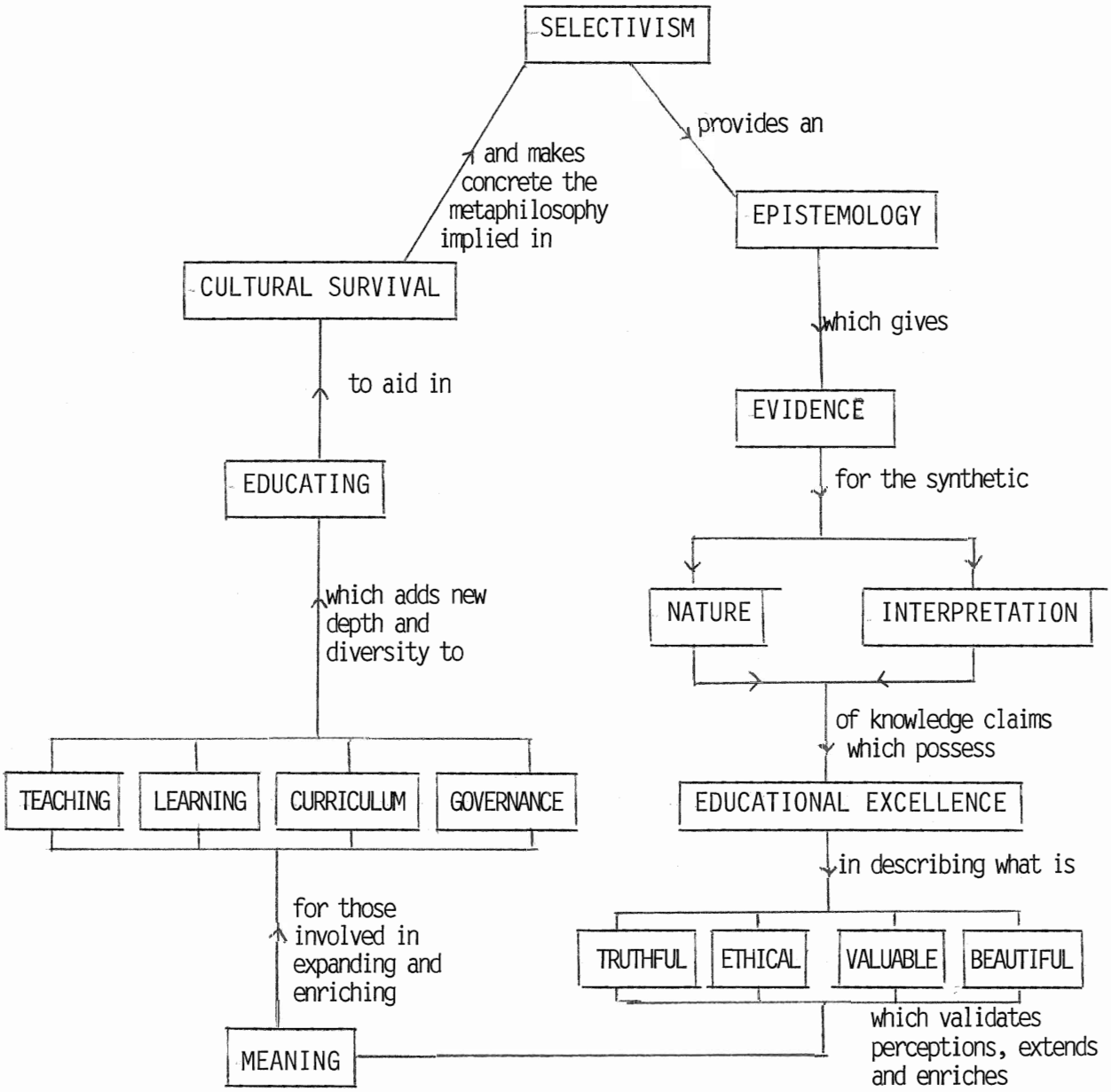

FIGURE XII: FINAL SUMMARY CONCEPT MAP

FOOTNOTES

1. Ervin Laszlo, Introduction to Systems Philosophy, (New York: Harper & Row Publishers, 1972), p. 303.

2. Ibid., p. 281.

3. Robert Nisbet, The Social Philosophers, (New York: Washington Square Press, 1973), p. 201.

4. Ibid., p. 201.

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